



SERVICE MANUAL

MODEL : LST-3410A



# HD/SD PERSONAL VIDEO RECORDER & RECEIVER WITH GEMSTAR SERVICE MANUAL

## MODEL : LST-3410A

### CAUTION

BEFORE SERVICING THE UNIT, READ THE "SAFETY PRECAUTIONS"  
IN THIS MANUAL.



P/NO : 3829RVN006Z

DECEMBER, 2003  
Printed in Korea

LG Electronics Inc.

# SECTION 1

## SUMMARY

### CONTENTS

INTRODUCTION .....	1-2
PRODUCT SAFETY SERVICING GUIDELINES FOR VIDEO PRODUCTS.....	1-3
SERVICING PRECAUTIONS.....	1-4
SPECIFICATIONS.....	1-5
LOCATION OF CUSTOMER CONTROLS .....	1-7

# INTRODUCTION

- Digital/Analog broadcasting recorder/receiver [HD/SD PERSONAL VIDEO RECORDER & RECEIVER] or PVR(Personal Video Recorder)-STB(Set-Top Box) receives the ground wave HD Digital broadcasting program /Analog NTSC or Cable broadcasting program and saves a video or audio signal at a HDD with a specific form or offers related additional services.

- Configuration

The CUP is the IBM PPC405GP of the PowerPC series supporting PCI Bus I/F for PVR, and the tuner receives a digital ground wave and transfers it as a TP signal, transmitting the NTSC signal of the ground wave/the cable signal and transferring the audio signal to the SIF.

The MPEG Decoder uses the HD-II supporting MP@HL built with the AC-3 Decoder.

The PVR section transforms the TP data of a digital TV signal and an analog audio/video signal into the TP by using the MPEG-II Encoder and saves only the necessary one at the HDD via the IDE I/F Chip.

## Overall configuration

- System section

CPU, Main Memory, MPEG-II Decoder, Flash Memory, and System CPLD.

- MPEG Video/Audio Decoder section

HD-2, Memory, PLL IC, Audio Processor, Audio ADC, and so on.

- PVR section

TPN-II performing PCI I/F and TP De-Mux, Memory, MPEG-II Encoder, IDE I/F Chip, and 120GB HDD.

- Video/Audio input section

CVBS Decoder, and Audio processor

- 1394 section

1394 1-Chip supporting D-VHS and MV Camcoder.

- Tuner

It can receive a signal from ATSC/NTSC/Cable, and send a signal from the ATSC as TP, an analog video signal as NTSC, and an audio signal as SIF.

- Front section

It is located at the front receiving various key inputs from users and displaying the status of a set-top box at the VFD.

- Power section

It supplies a DC power to Main Digital Board, Front Board, and HDD with the input of AC 110V.

# PRODUCT SAFETY SERVICING GUIDELINES FOR VIDEO PRODUCTS

## IMPORTANT SAFETY NOTICE

This manual was prepared for use only by properly trained audio-video service technicians.

When servicing this product, under no circumstances should the original design be modified or altered without permission from Zenith Electronics Corporation. All components should be replaced only with types identical to those in the original circuit and their physical location, wiring and lead dress must conform to original layout upon completion of repairs.

Special components are also used to prevent x-radiation, shock and fire hazard. These components are indicated by the letter "x" included in their component designators and are required to maintain safe performance. No deviations are allowed without prior approval by Zenith Electronics Corporation.

Circuit diagrams may occasionally differ from the actual circuit used. This way, implementation of the latest safety and performance improvement changes into the set is not delayed until the new service literature is printed.

**CAUTION:** Do not attempt to modify this product in any way. Never perform customized installations without manufacturer's approval. Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury.

Service work should be performed only after you are thoroughly familiar with these safety checks and servicing guidelines.

## GRAPHIC SYMBOLS



The exclamation point within an equilateral triangle is intended to alert the service personnel to important safety information in the service literature.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the service personnel to the presence of noninsulated "dangerous voltage" that may be of sufficient magnitude to constitute a risk of electric shock.



The pictorial representation of a fuse and its rating within an equilateral triangle is intended to convey to the service personnel the following fuse replacement caution notice:

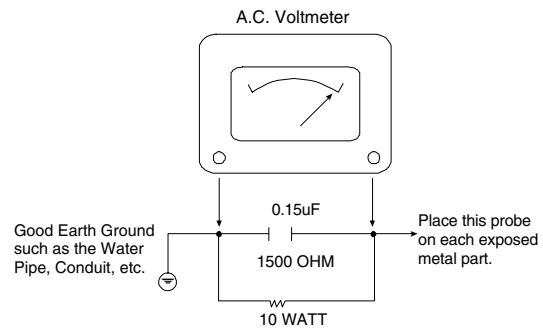
**CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ALL FUSES WITH THE SAME TYPE AND RATING AS MARKED NEAR EACH FUSE.**

## SERVICE INFORMATION

While servicing, use an isolation transformer for protection from AC line shock. After the original service problem has been corrected, make a check of the following:

### FIRE AND SHOCK HAZARD

1. Be sure that all components are positioned to avoid a possibility of adjacent component shorts. This is especially important on items transported to and from the repair shop.
2. Verify that all protective devices such as insulators, barriers, covers, shields, strain reliefs, power supply cords, and other hardware have been reinstalled per the original design. Be sure that the safety purpose of the polarized line plug has not been defeated.
3. Soldering must be inspected to discover possible cold solder joints, solder splashes, or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, for frayed leads or damaged insulation (including the AC cord), and replace if necessary.
5. No lead or component should touch a high current device or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. After reassembly of the set, always perform an AC leakage test on all exposed metallic parts of the cabinet (the channel selector knobs, antenna terminals, handle and screws) to be sure that set is safe to operate without danger of electrical shock. **DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST.** Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm, 10 watt resistor, paralleled by a .15 mfd 150V AC type capacitor between a known good earth ground water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and .15 mfd capacitor. Reverse the AC plug by using a non-polarized adaptor and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts RMS. This corresponds to 0.5 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



## TIPS ON PROPER INSTALLATION

1. Never install any receiver in a closed-in recess, cubbyhole, or closely fitting shelf space over, or close to, a heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as: outdoor patio installations where dew is a factor, near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct venting. The customer should also avoid the use of decorative scarves or other coverings that might obstruct ventilation.
4. Wall- and shelf-mounted installations using a commercial mounting kit must follow the factory-approved mounting instructions. A product mounted to a shelf or platform must retain its original feet (or the equivalent thickness in spacers) to provide adequate air flow across the bottom. Bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage tests on customized installations.
5. Caution customers against mounting a product on a sloping shelf or in a tilted position, unless the receiver is properly secured.
6. A product on a roll-about cart should be stable in its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against using extension cords. Explain that a forest of extensions, sprouting from a single outlet, can lead to disastrous consequences to home and family.



# SERVICING PRECAUTIONS

**CAUTION:** Before servicing the HD/SD PERSONAL VIDEO RECORDER & RECEIVER WITH GEMSTAR covered by this service data and its supplements and addends, read and follow the *SAFETY PRECAUTIONS*. *NOTE:* if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publications, always follow the safety precautions.  
*Remember Safety First:*

## General Servicing Precautions

1. Always unplug the HD/SD PERSONAL VIDEO RECORDER & RECEIVER WITH GEMSTAR AC power cord from the AC power source before:
  - (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
  - (2) Disconnecting or reconnecting any internal electrical plug or other electrical connection.
  - (3) Connecting a test substitute in parallel with an electrolytic capacitor.

**Caution:** A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this HD/SD PERSONAL VIDEO RECORDER & RECEIVER WITH GEMSTAR or any of its assemblies.
3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cotton-tipped swab, or comparable soft applicator.  
Unless specified otherwise in this service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
5. Do not apply AC power to this HD/SD PERSONAL VIDEO RECORDER & RECEIVER WITH GEMSTAR and / or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
6. Always connect the test instrument ground lead to an appropriate ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

## Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter (500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M-ohm.

**Note 1:** Accessible Conductive Parts include Metal panels, Input terminals, Earphone jacks, etc.

## Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate an electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

**Caution:** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

# SPECIFICATIONS

## System Specifications

- ◆ **CPU [PPC405GP Rev E]**
  - PowerPC405GP, 32-bit, 200MHz RISC Processor
  - I Cache 16K, D Cache 8K
  - SDRAM Controller(100MHz speed)
  - External Peripheral Bus(up to 8 device)
  - PCI 2.2 I/F(32-bit, 33MHz)]
  - DMA, Interrupt Controller, Serial Port, GPIO, I<sup>2</sup>C
- ◆ **System Memory**
  - Main Memory : 32MB(K4S281632 x2)
  - Flash Memory : 8MB(MEM29DL323x2)
  - NVRAM : EEPROM(32KB, 105 Read/Write)
  - Probe ROM : 512KB (Am29LV040)
- ◆ **MPEG 2 A/V Decoder [LGDT1102A]**
  - 1 HD(MP@HL) or 4 SD(MP@ML)
  - ATSC all format Decoding
  - Memory : SDRAM 32MB(K4S641632 x4)
  - Graphics
  - 2D Graphics
  - HD Resolution(max. 1080x1920 x16-bit)
  - BitBLT/Rendering Cursor Support(by H/W)
  - Alpha Blending(6-bit level) Support
  - Audio Decoder
  - AC-3 Decoding
  - MPEG Audio Layer 1, 2 Decoding
  - SPDIF Output
- ◆ **PLL IC [LGDT1901A]**
  - HD-2 Video Clock Generation
  - 27MHz VCXO input & Control Signals
- ◆ **System CPLD [EPM7256AETC]**
  - HD-2 I/F Signal
  - Address Decode
  - GPIO
- ◆ **Audio Processor [MSP4450]**
  - SIF Processing
  - Audio Input Selection
  - ADC/DAC
  - Volume control
- ◆ **Video Decoder [VPX3226F]**
  - CVBS Decoding
  - Video Processing
  - 656 Data Output
  - VBI/CC support
- ◆ **DVI Transmitter [Sil170]**
  - DVI output
  - HDCP Support
- ◆ **I<sup>2</sup>C Controller [PCF8584]**
  - Tuner(ATSC/NTSC/Cable) I/F
  - Gemstar I/F
  - Front MiCOM I/F
- ◆ **TPN-II**
  - TP Processing for PVR
  - PCI I/F
  - SDRAM I/F 16MB(K4S641632)
  - PVR Function
- ◆ **MPEG-2 Encoder [BCM7040]**
  - MPEG-2 Encoding (MP@ML)
  - 656/I2S Input, TP output
  - SDRAM I/F 16MB(K4S643232)
  - PCI I/F
- ◆ **E-IDE Controller [ARS0303D]**
  - PCI I/F
  - E-IDE Controller
- ◆ **ATSC/NTSC/CableTuner[TDVL-H100P]**
  - AT/NT/Cable NIM Tuner
  - I<sup>2</sup>C I/F, TP/CVBS/SIF Out
- ◆ **Miscellaneous**
  - RS-232C
  - RF Switch
  - MiCOM( Timer, Gemstar Tuning)
  - Gemstar I/F : Video Input, I<sup>2</sup>C
- ◆ **IEEE-1394[TSB43CA42]**
  - 1394 TP In/Out
  - Link&PHY(1-Chip)
- ◆ **MUX CPLD [EPM7256AETC]**
  - 1394 TP In/Out
  - Encoder TP, VSB TP, TPN-II TP In/Out
- ◆ **Gemstar Board**
  - GS501 : Gemstar Processor
  - GS502 : AD Converter
  - G-Link
- ◆ **Power Board**
  - Input: AC120V/60Hz
  - Output
    - Main Board : 9V,5V,3.3V,L\_5V,L\_33V
    - Front Board : -28V,-24V,-21.5V
    - HDD : 12V, 5V
- ◆ **HDD [?]**
  - 120GB
  - Ultra DMA-100
- ◆ **Front Panel**
  - I<sup>2</sup>C I/F, Power On/Off
  - VFD Display
- ◆ **Remote Controller**
  - Basic TV
  - PVR Function

## In/out Connector

### ◆ Input

- Antenna In : Terrestrial [F Connector]
- Antenna In : Cable [F Connector]
- CVBS Video/Audio-1 [RCA Jack, 3EA]
- CVBS Video/Audio-1 [RCA Jack, 3EA]

### ◆ Output

- Video Out
  - Component Out : YPbPr [RCA Jack, 3EA]
  - Composite Out : CVB S-1 [RCA Jack, 1EA]
  - S-Video Out [Mini DIN Jack, 1EA]
- Composite Out : CVBS-2 [RCA Jack, 1EA]
- RGB Out : VGA [D-SUB 15-P, 1EA]
- DVI Out
- Audio Out
  - Stereo Out -1 [RCA Jack, 2EA]
  - Stereo Out-2 [RCA Jack, 2EA]
  - SPDIF Out : Photo Link
- Serial Port
- IEEE-1394 Port [1394 2EA]

### ◆ G-Link

- S/W Up-grade
- IR Blaster

## Set-Top Box Size

- ◆ 430(W) x 69(H) x 297(D) [Unit: mm]

## Remote Controller Size

- ◆ 55(W) x 240(H) x 35(D) [Unit: mm]

## Power

### ◆ Input

- AC120V/60Hz

### ◆ Output

- Main Board : 9V,5V,3.3V,L\_5V,L\_33V
- Front Board : -28V,-24V,-21.5V
- HDD : 12V, 5V

### ◆ Power Consumption : 35W

## Board Size

### ◆ Main Board Size

- 213(D) x317(W) with Dummy[Unit : mm]
- 170(D) x317(W) [Unit : mm]

### ◆ Gemstar Board Size

- 130(D) x48(W) [Unit: mm]

### ◆ Power Board Size

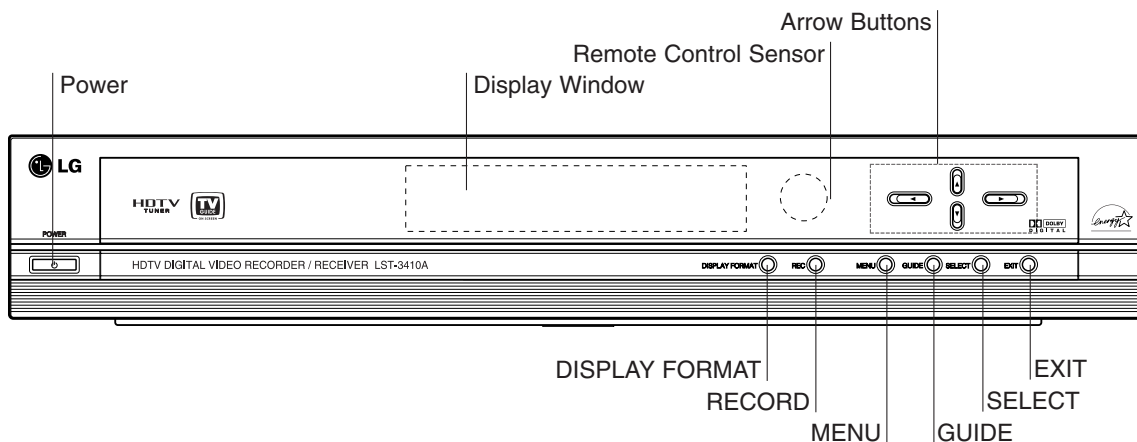
- 247(D) x 93(W) [Unit: mm]

### ◆ Front Panel Board Size

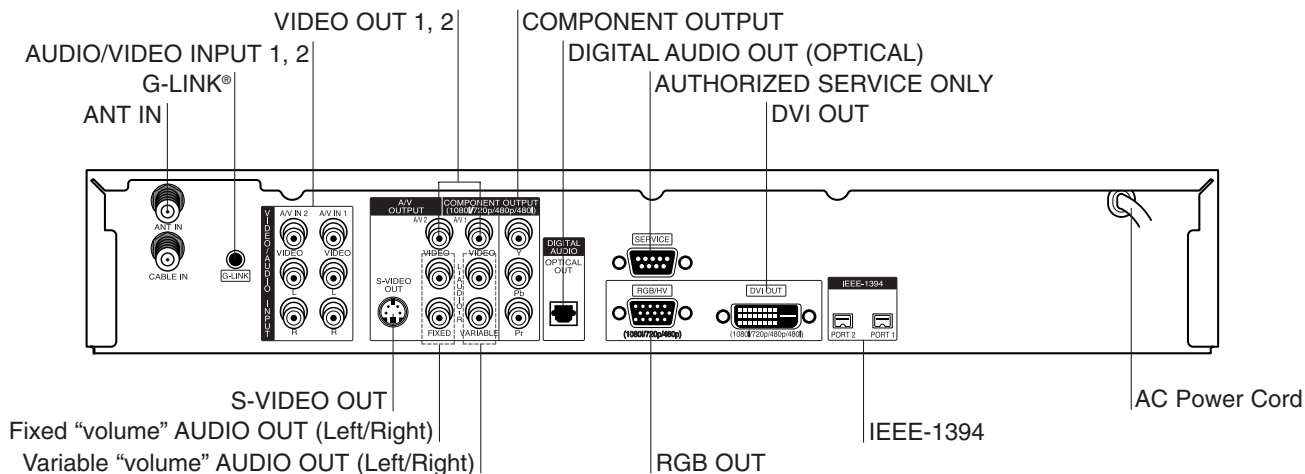
- 50(D) x 280(W) [Unit: mm]

# LOCATION OF CUSTOMER CONTROLS

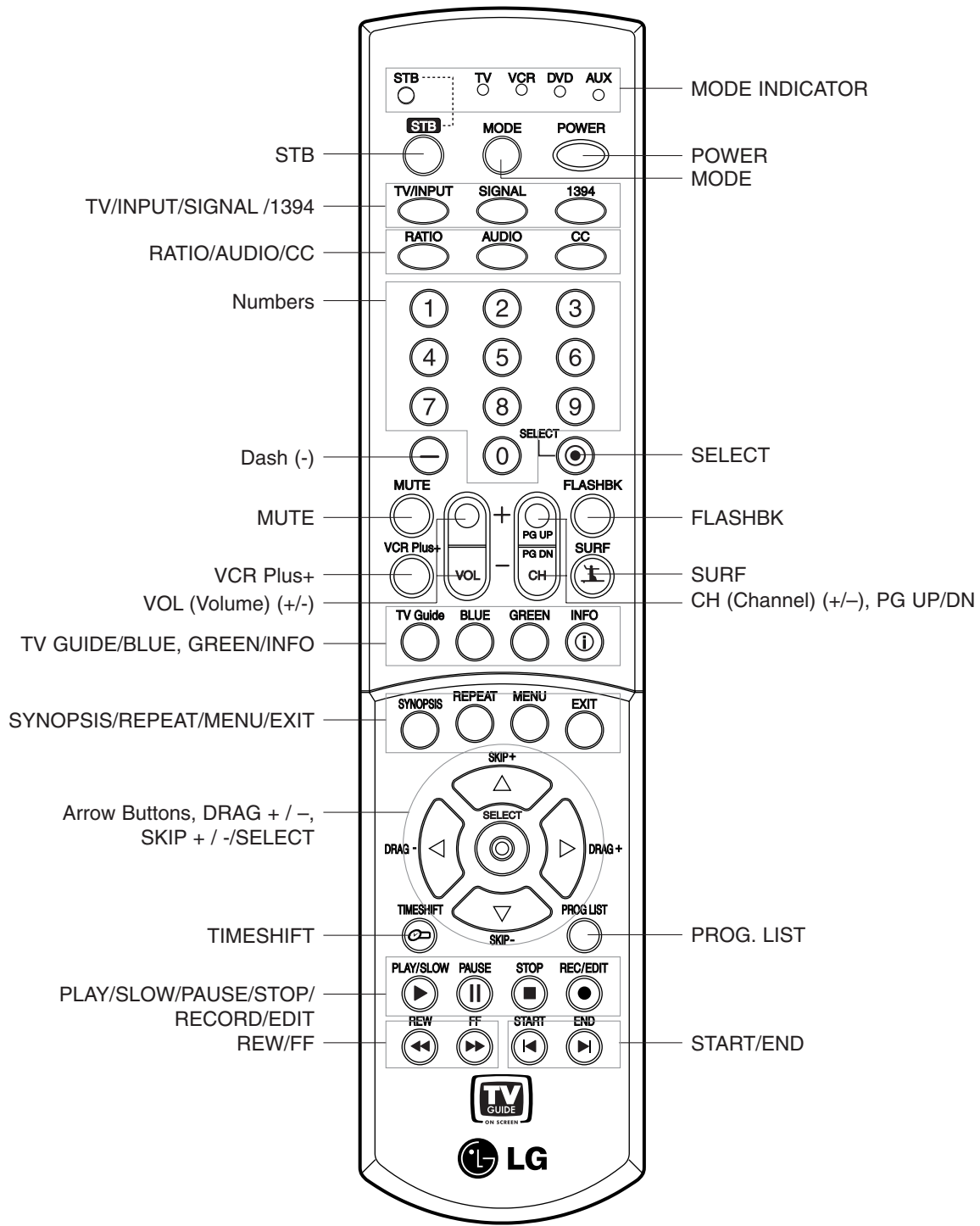
## FRONT



## REAR



## REMOTE CONTROL



**SECTION 2**

**CABINET & MAIN CHASSIS**

**CONTENTS**

**EXPLODED VIEWS .....2-2**

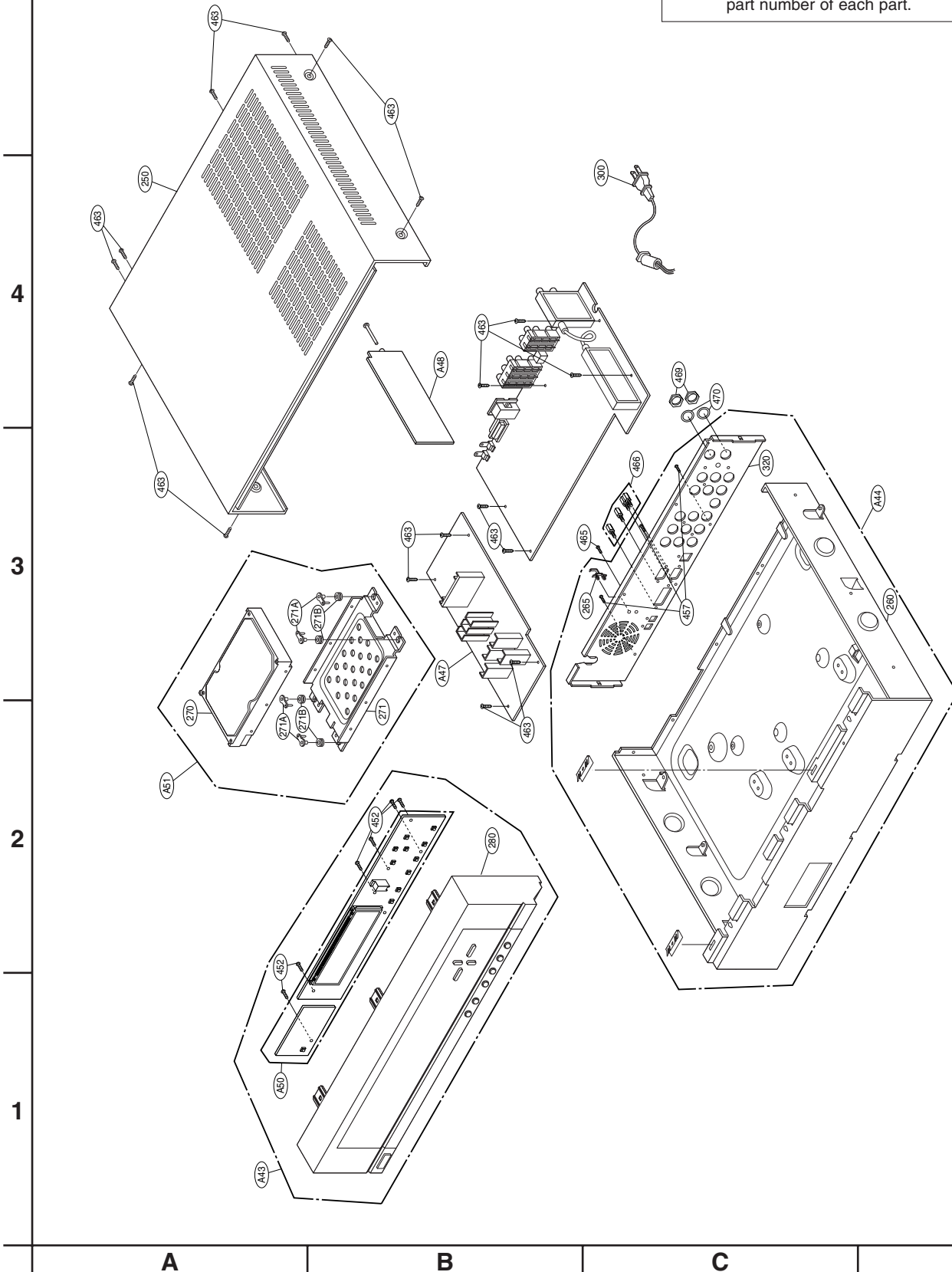
**1. Cabinet and Main Frame Section .....2-2**

**2. Packing Accessory Section .....2-3**

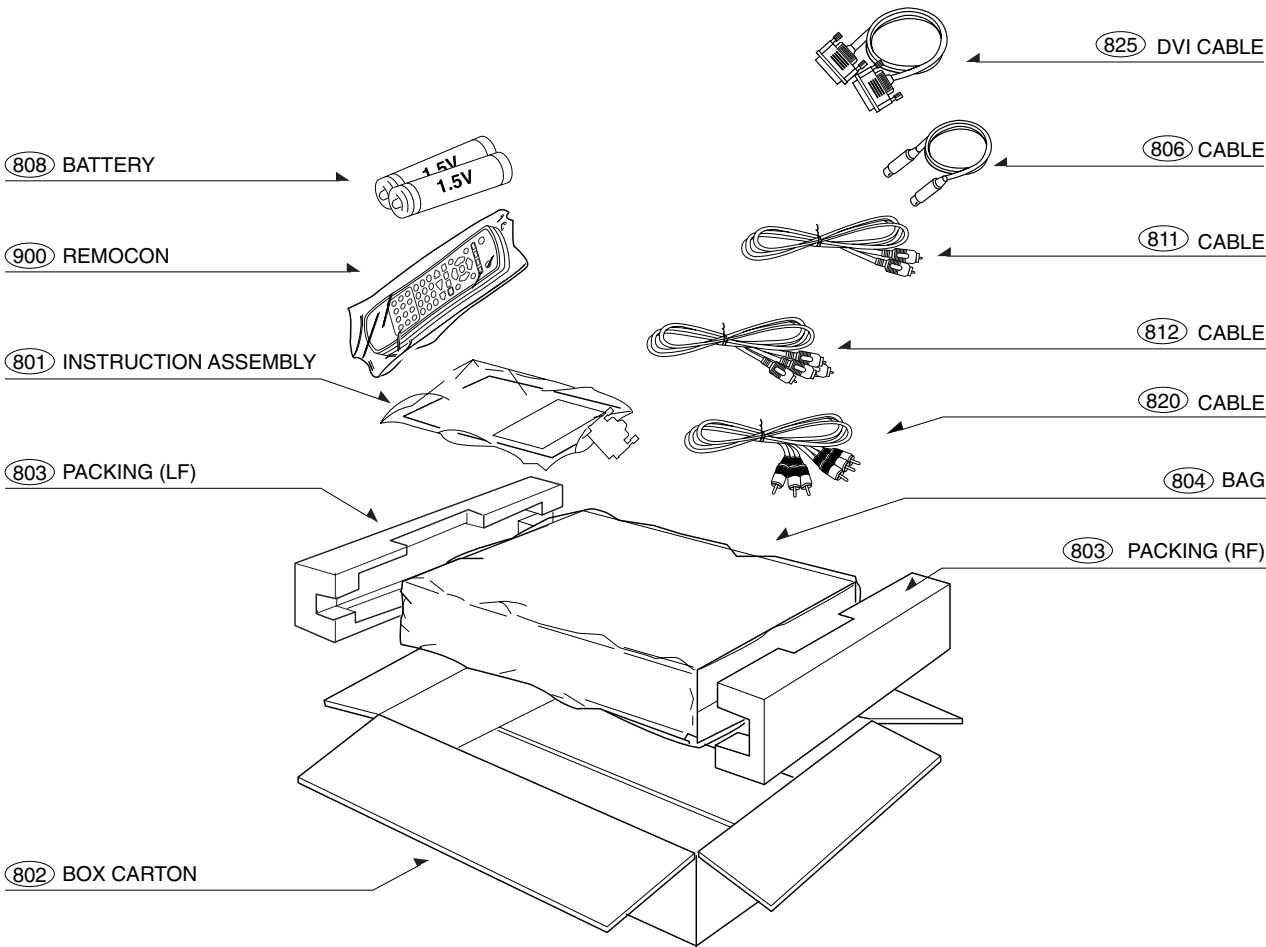
# EXPLODED VIEWS

## 1. Cabinet and Main Frame Section

NOTE) Refer to "SECTION 4 REPLACEMENT PARTS LIST" in order to look for the part number of each part.



2. Packing Accessory Section





# SECTION 3

## ELECTRICAL

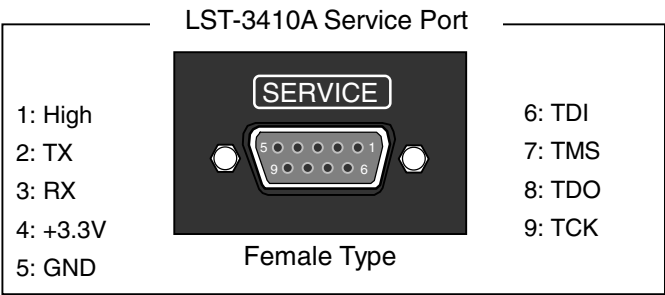
### CONTENTS

SYSTEM S/W UP-GRADE.....	3-2	4. SYSTEM MEMORY, FLASH, I2C COT	
1. UP-GRADE CABLE CONFIGURATION .....	3-2	CIRCUIT DIAGRAM.....	3-76
2. CPLD PROGRAM.....	3-4	5. HD-II CIRCUIT DIAGRAM .....	3-78
3. S/W UP-GRADE .....	3-9	6. HD2 MEMORY PLL CIRCUIT DIAGRAM 2 3-80	
TEST S/W.....	3-11	7. AUDIO PROCESSOR, SPDIF OUT	
1. TEST S/W .....	3-11	CIRCUIT DIAGRAM.....	3-82
2. DIAGNOSTIC S/W .....	3-14	8. NTSC DECODER, DVI OUTPUT	
GEMSTAR UP-GRADE.....	3-27	CIRCUIT DIAGRAM.....	3-84
ELECTRICAL TROUBLESHOOTING GUIDE.....	3-30	9. TPN-II, MEMORY CIRCUIT DIAGRAM .....	3-86
1. POWER ON .....	3-30	10. MPEG ENCODER & MEMORY	
2. SYSTEM PART .....	3-31	CIRCUIT DIAGRAM .....	3-88
3. VIDEO PART-1.....	3-32	11. PCI2IDE CONTROLLER CIRCUIT	
4. YPbPr VIDEO OUTPUT		DIAGRAM .....	3-90
TROUBLESHOOTING.....	3-33	12. ATSC/QAM/NTSC NIM TUNER	
5. RGB VIDEO OUTPUT		CIRCUIT DIAGRAM .....	3-92
TROUBLESHOOTING.....	3-34	13. AUDIO/VIDEO OUT CIRCUIT	
6. CVBS VIDEO OUTPUT		DIAGRAM .....	3-94
TROUBLESHOOTING.....	3-35	14. 1394 CIRCUIT DIAGRAM .....	3-96
7. AUDIO TROUBLESHOOTING .....	3-36	15. MICOM, POWER I/F, FRONT I/F	
8. TUNER TROUBLESHOOTING .....	3-37	CIRCUIT DIAGRAM .....	3-98
9. PVR PART TROUBLESHOOTING.....	3-38	16. FRONT CIRCUIT DIAGRAM .....	3-100
10. GEMSTER TROUBLESHOOTING.....	3-39	17. GEMSTAR CONTROLLER	
WAVEFORMS .....	41	CIRCUIT DIAGRAM .....	3-102
1. SYSTEM PART-1 .....	3-41	18. GEMSTAR MEMORY	
2. DIGITAL SYSTEM [SYSTEM MEMORY]		CIRCUIT DIAGRAM .....	3-104
SECTION .....	3-43	19. GEMSTAR MICOM, I/F CIRCUIT	
3. VIDEO PART-1.....	3-45	DIAGRAM .....	3-106
4. VIDEO PART-2.....	3-47	PRINTED CIRCUIT DIAGRAMS .....	3-108
5. AUDIO PART-1 .....	3-49	1. DIGITAL MAIN PRINTED CIRCUIT	
6. AUDIO PART-2 .....	3-51	DIAGRAMS(TOP) .....	3-108
7. VIDEO IN & DVI OUT .....	3-53	2. DIGITAL MAIN PRINTED CIRCUIT	
8. PVR PART-1 .....	3-55	DIAGRAMS(BOTTOM) .....	3-110
9. PVR PART-2 .....	3-57	3. SMPS(POWER) PRINTED CIRCUIT	
10. YPbPr, RGB OUT.....	3-59	DIAGRAM .....	3-112
11. CVBS OUT.....	3-61	4. GEMSTAR PRINTED CIRCUIT	
12. 1394 PART.....	3-63	DIAGRAM(TOP).....	3-114
13. GEMSTAR PART .....	3-65	5. GEMSTAR PRINTED CIRCUIT	
BLOCK DIAGRAM .....	3-67	DIAGRAM(BOTTOM) .....	3-115
1. WIRING DIAGRAM.....	3-67	6. KEY PRINTED CIRCUIT DIAGRAM .....	3-116
2. TOTAL BLOCK DIAGRAM.....	3-68	7. TIMER PRINTED CIRCUIT DIAGRAM .....	3-116
3. SIGNAL PATH DIAGRAM .....	3-69	VOLTAGE MEASURED VALUE .....	3-118
CIRCUIT DIAGRAMS .....	3-70	1. ALUMINUM CAPACITOR-1 .....	3-118
1. POWER CIRCUIT DIAGRAM .....	3-70	2. ALUMINUM CAPACITOR-2.....	3-118
2. CPU CIRCUIT DIAGRAM 1.....	3-72	3. ALUMINUM CAPACITOR-3.....	3-119
3. BOOT STRAPPING, CLOCK, CPLD		4. ALUMINUM CAPACITOR-4.....	3-121
CIRCUIT DIAGRAM .....	3-74	5. DIODE .....	3-121

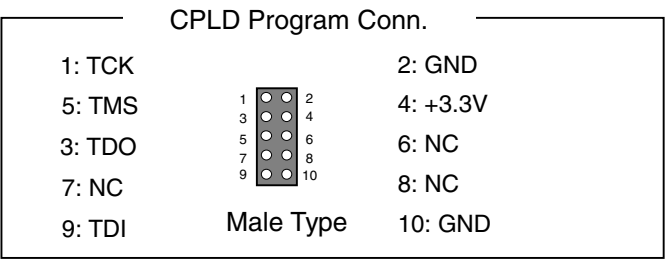
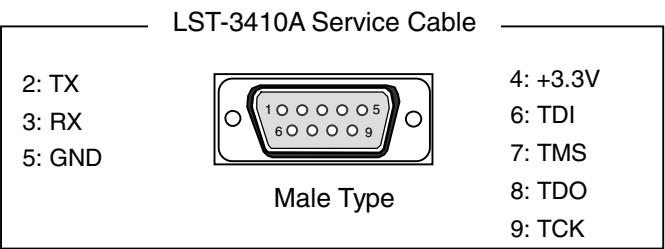
# SYSTEM S/W UP-GRADE

## 1. UP-GRADE CABLE CONFIGURATION

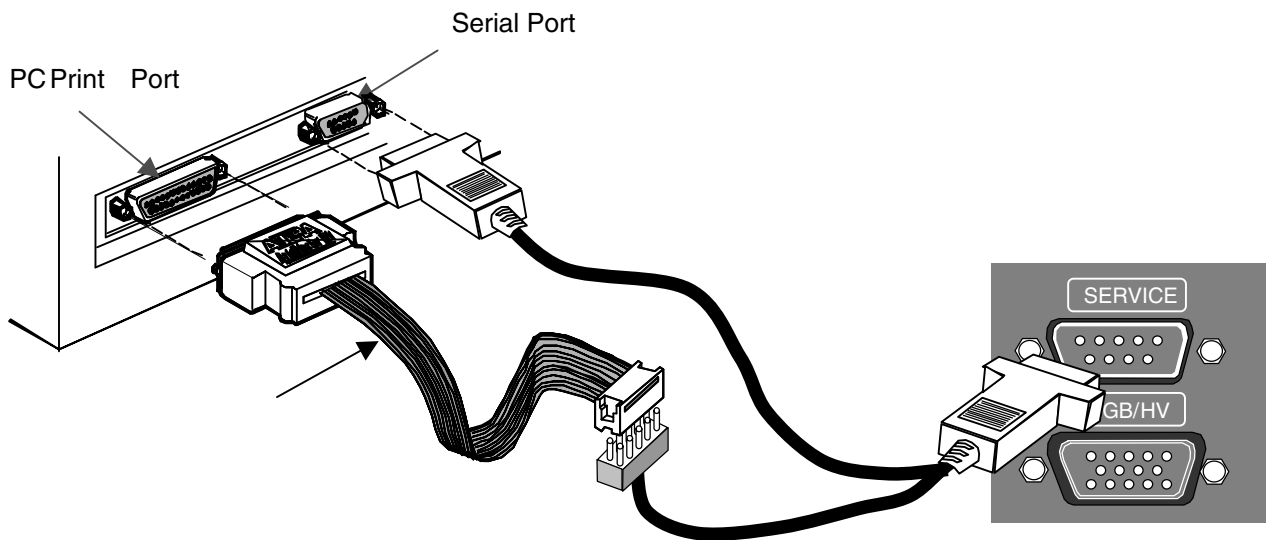
- LST-3410A Side



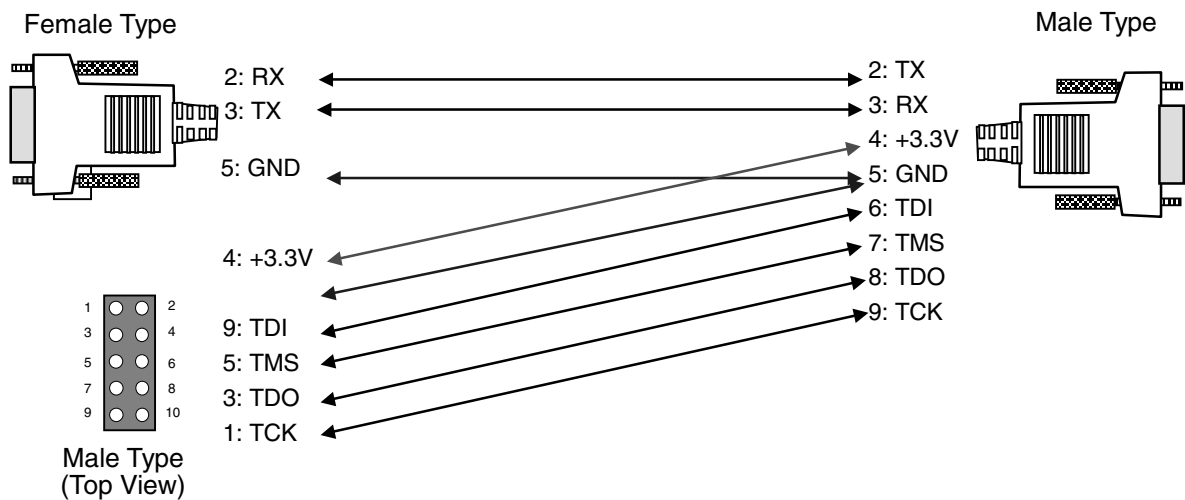
- PC Side



- Up-grade Cable Connection



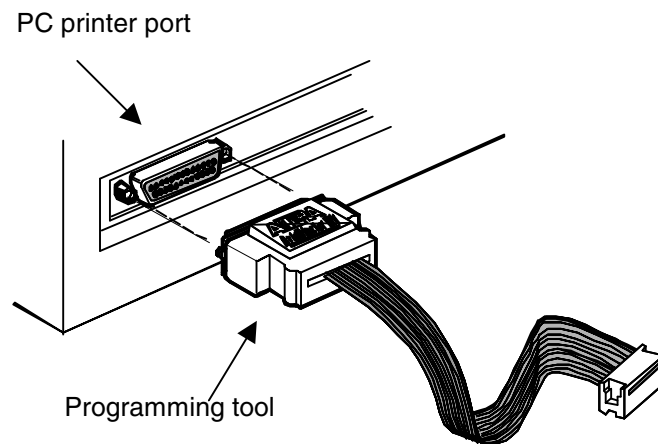
- Up-grade Cable Configuration



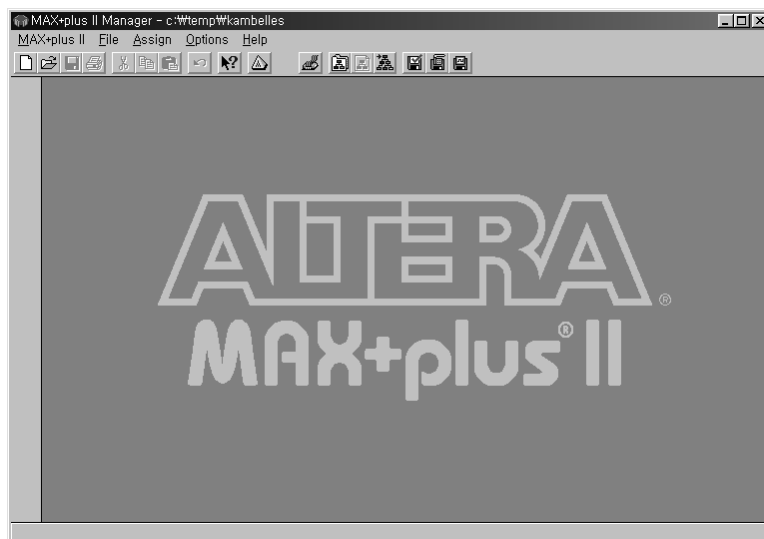
## 2. CPLD PROGRAM

1> Check that the ALTERA Programming hardware is installed.

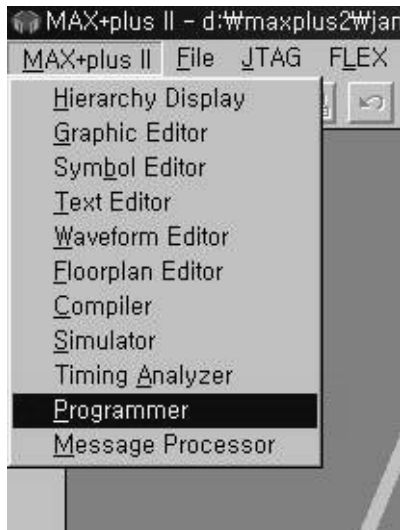
\* Connect the Byte blaster to the parallel port (printer port) of the PC.



2> Run the ALTERA MAX2PLUS.



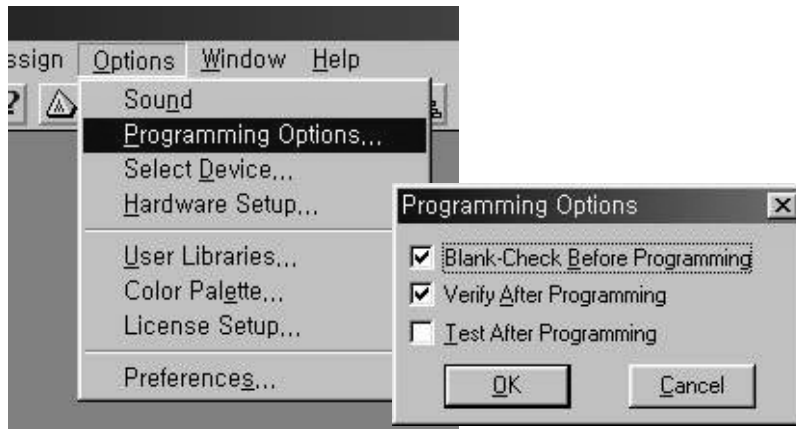
3> Press 'MAX+plusII' at the main menu and select 'programmer.'



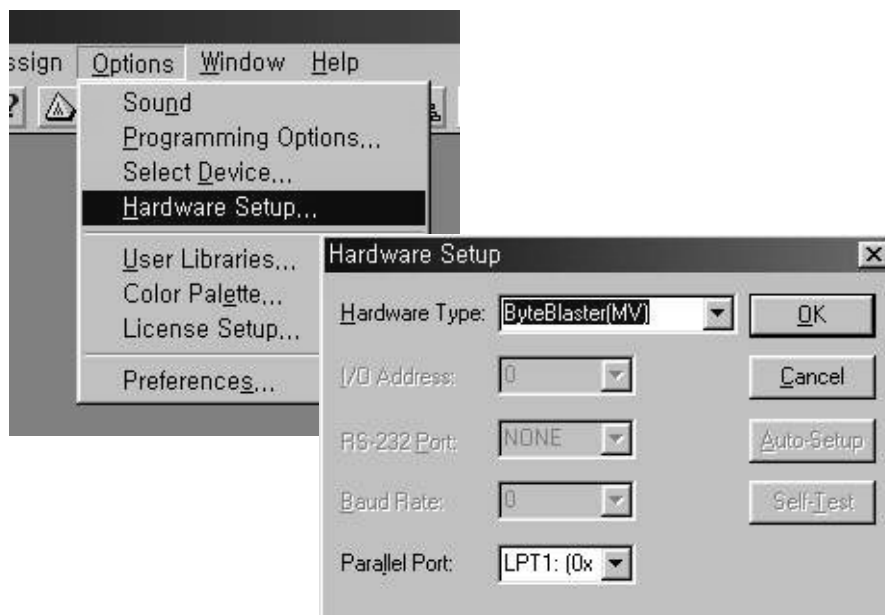
--> If 'programmer' is selected, 'programmer' window is popped up.



- 4> Select 'programming options' of 'Options' menu.  
--> Blank-check before Programming  
--> Verify after Programming

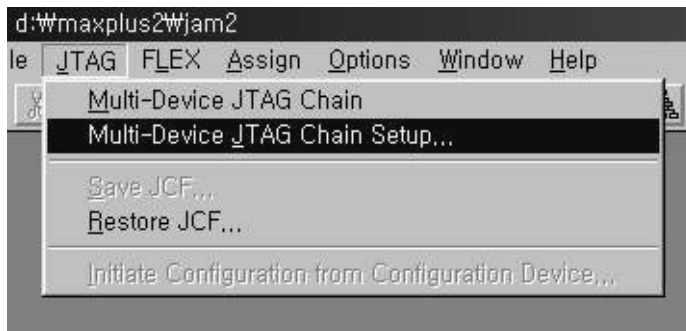


- 5> Select 'Hardware setup' of 'Options' menu.  
--> programming hardware (ByteBlater)

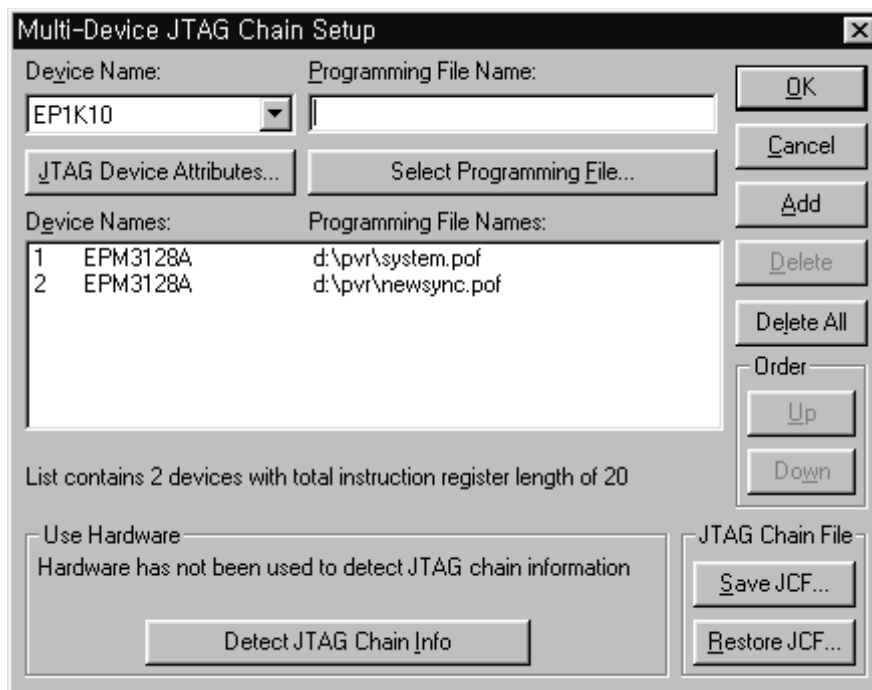


6> Select 'setup' of 'JTAG' menu.

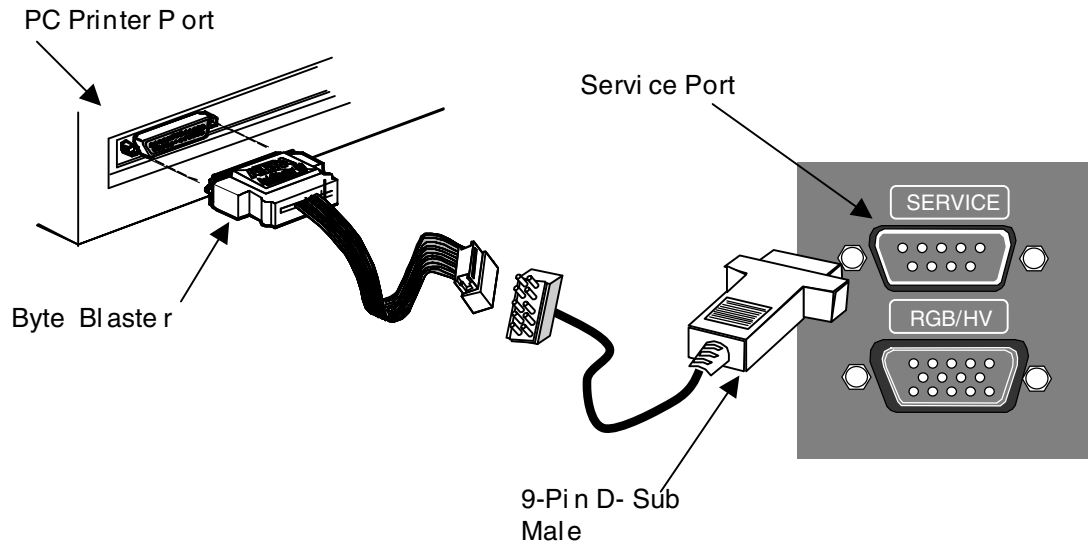
--> Multi-Device JTAC chain setup (select the file to be programmed)



--> Check that the file to be programmed is properly selected.

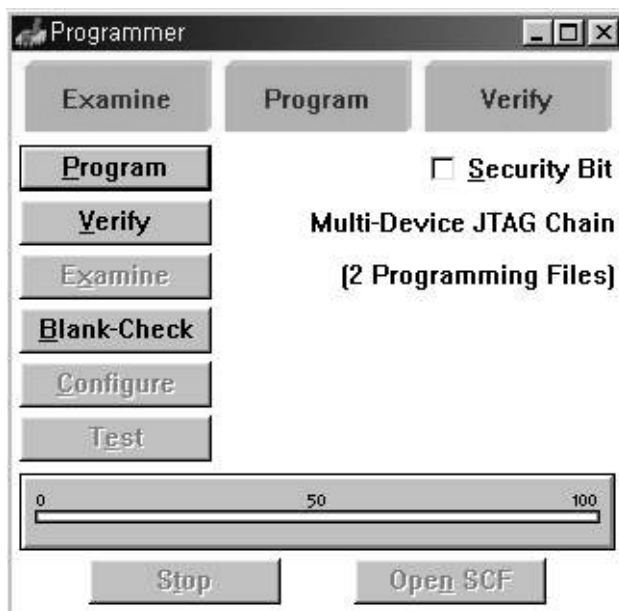


7> The connector of the Byte blaster can be connected to the connector that may be connected to the service port.



8> Turn on the Digital Board.

9> Run the program by pressing 'Enter' key.



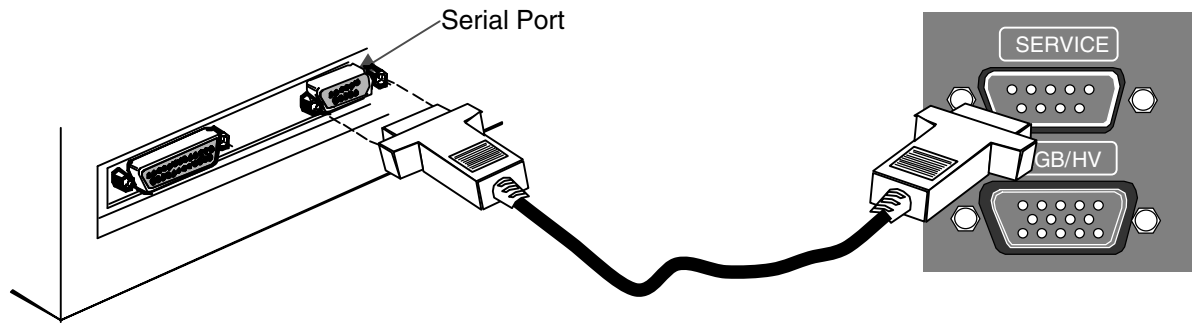
10> Check that it is properly programmed.  
=> When the program is completed, the green LED of the IC105 is turned ON.

11> Turn off the Digital Board.



### 3. S/W UP-GRADE

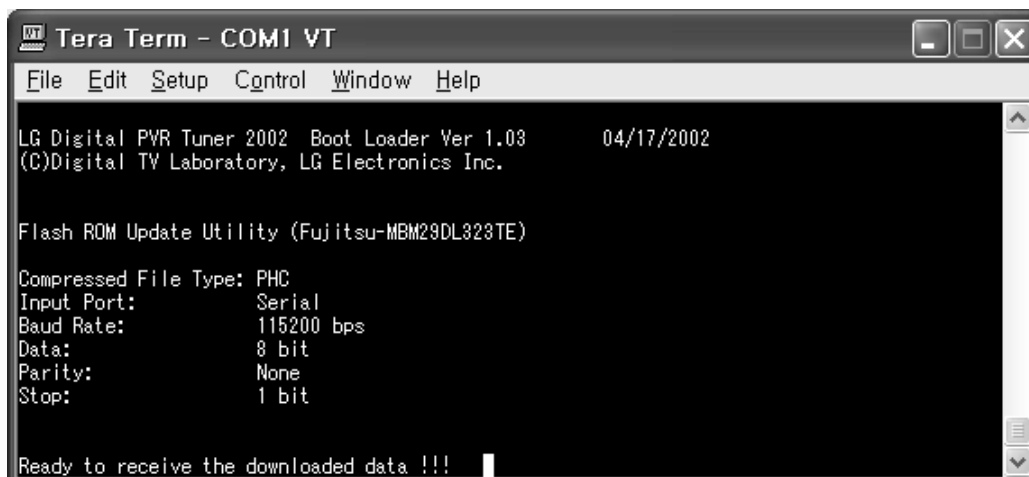
- 1> Connect the female type of the up-grade cable to the PC serial port and connect the 9-pin male type to the LST-3410A.



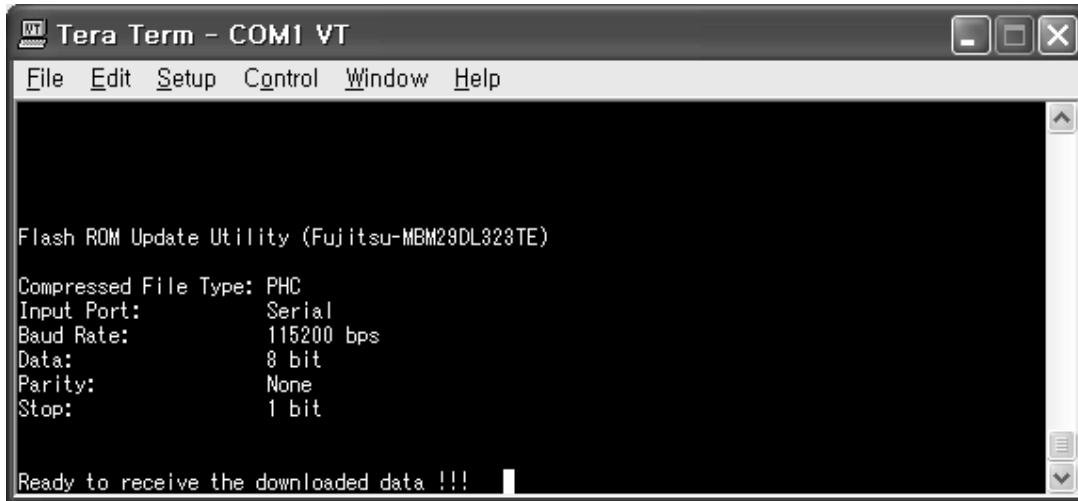
- 2> Run the Teraterm Program at the PC.



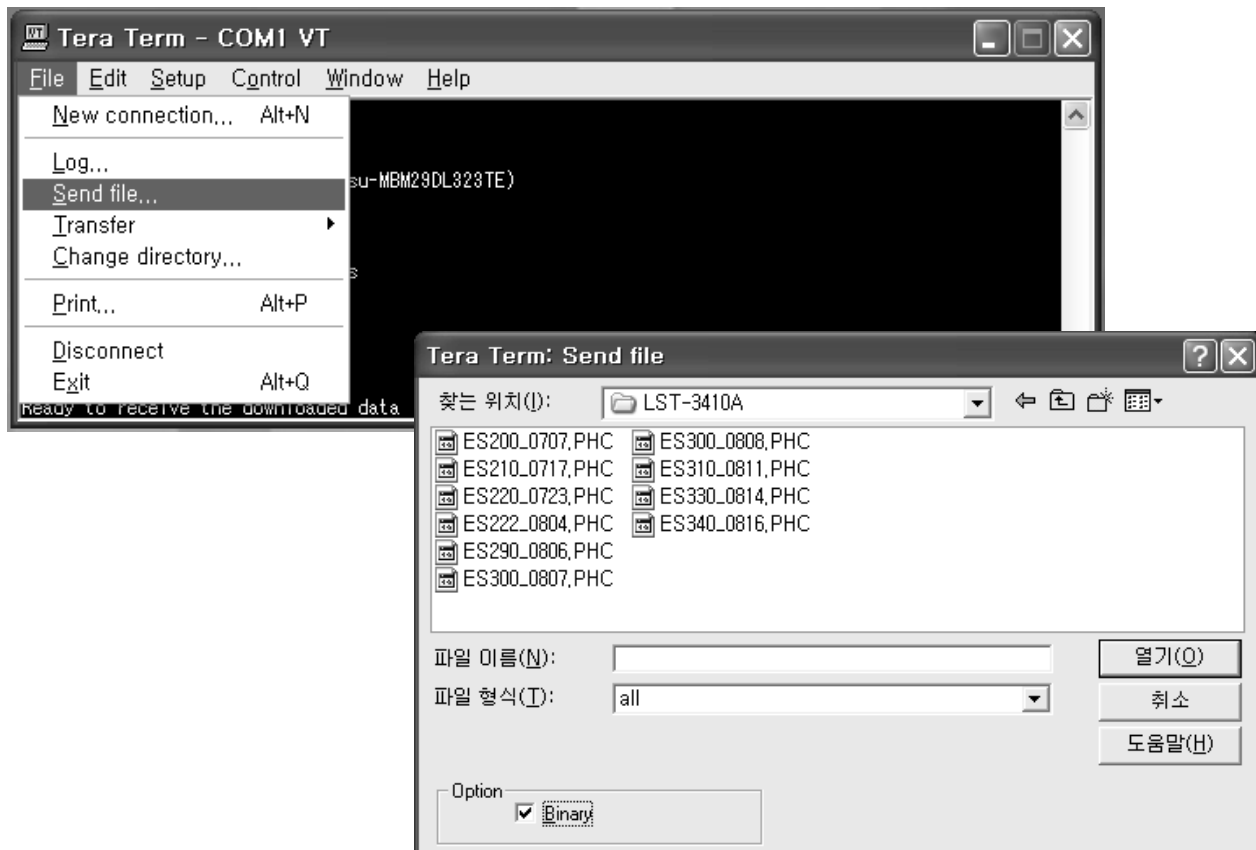
- 3> With the power of the LST-3410A on, press both 'SELECT' key and 'Volume-up' key of front keys.



4> When the TeraTerm screen is displayed as shown at the below, select 'send file' from 'File.'



--> Check that the file to be programmed is properly selected.



# TEST S/W

## 1. Test S/W

### Preparation for using H/W Test Code stored at the flash memory

At the time of the power up, connect the serial cable to the service port, locate the cursor at the TeraTerm window, and turn on the power of the LST-3410A by pressing “shift”+”D” at the PC keyboard.

Enter “svcLST3410” as the password.

(The password is capital sensitive)

### Section possible to check by using H/W Test Code

#### Initial screen

```
=====
ROM TEST Program For PVR-SET (2003/09/26)
=====
----- System Info -----
Processor = 405GP, PVR: 40110145
Processor speed = 200 MHz
PLB speed = 100 MHz
OPB speed = 33 MHz
Ext Bus speed = 33 MHz
PCI Bus speed = 33 MHz (Sync)
Amount of SDRAM = 32 MBytes
Internal PCI arbiter enabled
-----
***** TEST MENU *****
1 - System SDRAM Test
2 - HD-II Memory Test
3 - HD-II DMA Test
4 - HD-II Audio Decoder Test
5 - PCF8584-A(TUNER/MICOM/GEMSTAR Test)
6 - CPU I2C(EEPROM/VSB/4450/3226/170B) Test
7 - PCI Device(TPN-II/IDE/KFIR) Test
8 - IDE R/W Test
9 - Video Display Test
A - FLASH Memory Test
B - FLASH Program from Serial port
C - Flash Program from HDD
D - Ethernet Ping Test
E - TI-1394 Test
F - GPIO Test
->
```

The total test is performed by entering “T.”

**Screen shot during the test**

The test is proceeded by entering “T” and pressing ‘Enter’ key.

[illegible]

“START” is displayed at the VFD when entering into the test mode.

Video Display Out Test---->>>>>>>>>>>>>>>>

The test pattern is displayed to A/V-1 or A/V-2 at this test.

Front Test----->OK

The whole VDF blinks at this test.

“END” is displayed at the VFD when the test is completed.

## Final result display

\*\*\*\*\*System Test Result\*\*\*\*\*

```
01.System SDRAM Test1>OK
02.Flash Memory Test----->OK
03.HD2 Test1----->OK
04.HD2 DMA Test----->OK
05.I2C EEPROM Test----->OK
06.VSB Test----->OK
07.I2C Tuner Test----->OK
08.TPN-II & MEMORY Test----->OK
09.IDE Device Test----->OK
10.KFIR MPEG ENCODER Device Test----->OK
11.HDD Read/Write Test----->OK
12.TI 1394 Device Test----->OK
13.I2C GEMSTAR Test----->OK
14.I2C MSP4450 Audio Test----->OK
15.I2C VPX3226 Test----->OK
16.I2C SIL170 Test----->OK
17.Front Test----->OK
```

\*\*\*\*\*

“Error” is displayed for any error.

At this time, concentrating on the section with the error can make the problem found easily.  
How to troubleshoot each error can be concretely shown at the following section.

At the above test, the test status is sent to the PC serial port by connecting the probe ROM via the jig.

## 2. Diagnostic S/W

Diagnostic mode is the self test mode for testing the LST-3410A simply at the field by a service person.

Diagnostic mode can be entered by pressing both 'Volume down' key and 'SELECT' key of the front panel.

When Diagnostic mode is entered, the video output is fixed at the video(480i) mode.  
Except the Resolution Test mode, all test modes are fixed at the video(480i) mode.

Moving is done by arrow keys and selecting by 'select' key within the Diagnostic mode.  
Pressing '0' of the remote controller at each test mode exits the test.

Pressing "TV GUIDE" of the remote controller exits from the Gemstar Test mode.

Selecting "EXIT" from the Diagnostic main Menu exits from the Diagnostic mode.

Most of test statuses are displayed at the VFD. ".TS" is displayed at the end on the VFD for differentiating the Diagnostic mode from the general mode.

### 1) Diagnostic Mode Menu configuration

Model : LST-3410A

Version : 0.0.9

Date : hh:mm mm/dd/yyyy

Diagnostic Menu

1. VFD Test

2. Front-Key Test

3. DTV Out/Resolution Test

4. Audio Test

5. Ext A/V In Test

6. 1394 Test

7. Gemstar Test

8. Test Data Set/Erase

9. FMODE Set Init

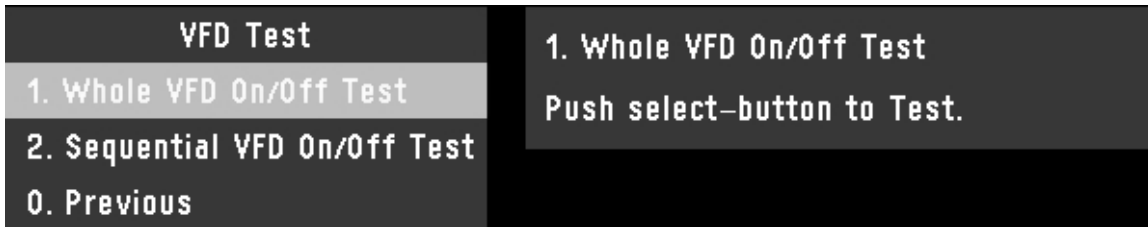
Start "Select" key

Move "Arrow" key

EXIT "0" key

Exit from Diagnostic Mode "EXIT" key

## 2) VFD Test



< Fig 1 > VFD Test Menu

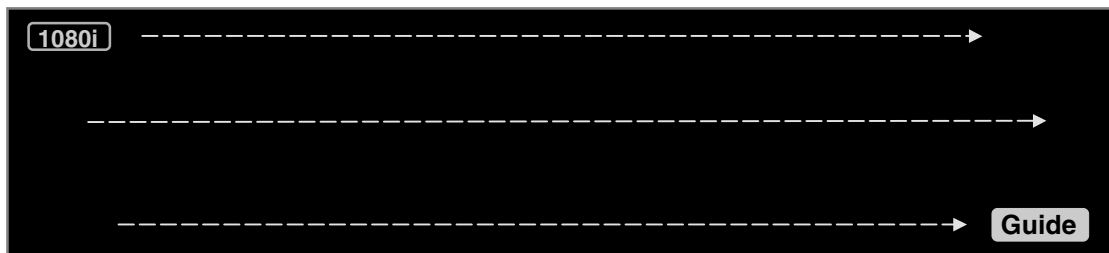
1) Whole VFD On/Off Test turns on/off the whole VFD of the front display.



< Fig 2 > Whole VFD On

Turn on and off with one second of interval until this test is ended by pressing “0” of the remote controller.

2) Sequential VFD On/Off Test sequentially turns on all segments from the top right (1080I), and when all of them are turned on, the VFD blinks.



< Fig 3 > VFD Sequential On

Each test starts by pressing ‘Select’ button at the highlighted menu of the test menu.

When all tests are completed or you want to exit it abnormally, pressing “0” of the remote controller exits the key test menu of the front section and proceeds to the higher menu.

### 3) Front Key Test

- 1) Pressing a key displays the related function at the VFD.  
Check that the related key displayed at the VFD is properly pressed by pressing all keys sequentially.



< Fig4 > Front Key Test Menu

- Ex) Pressing 'DISPLAY FORMAT' key displays "DISPLAY FORMAT" at the VFD.  
Pressing 'REC' key displays "REC" at the VFD.  
'Power' key is excluded from the test.



< Fig5 > Front Key Test VFD

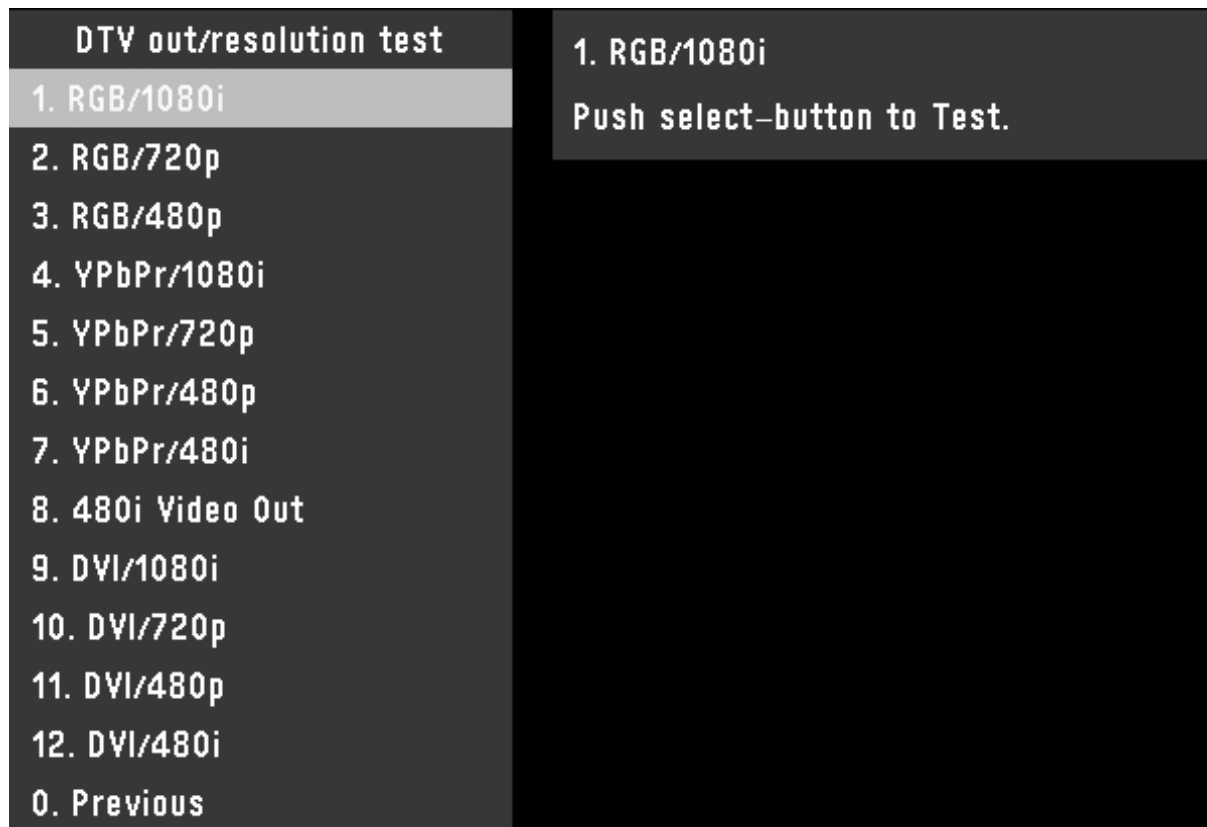
When all tests are completed or you want to exit it abnormally, pressing "0" of the remote controller exits the key test menu of the front section and proceeds to the higher menu.



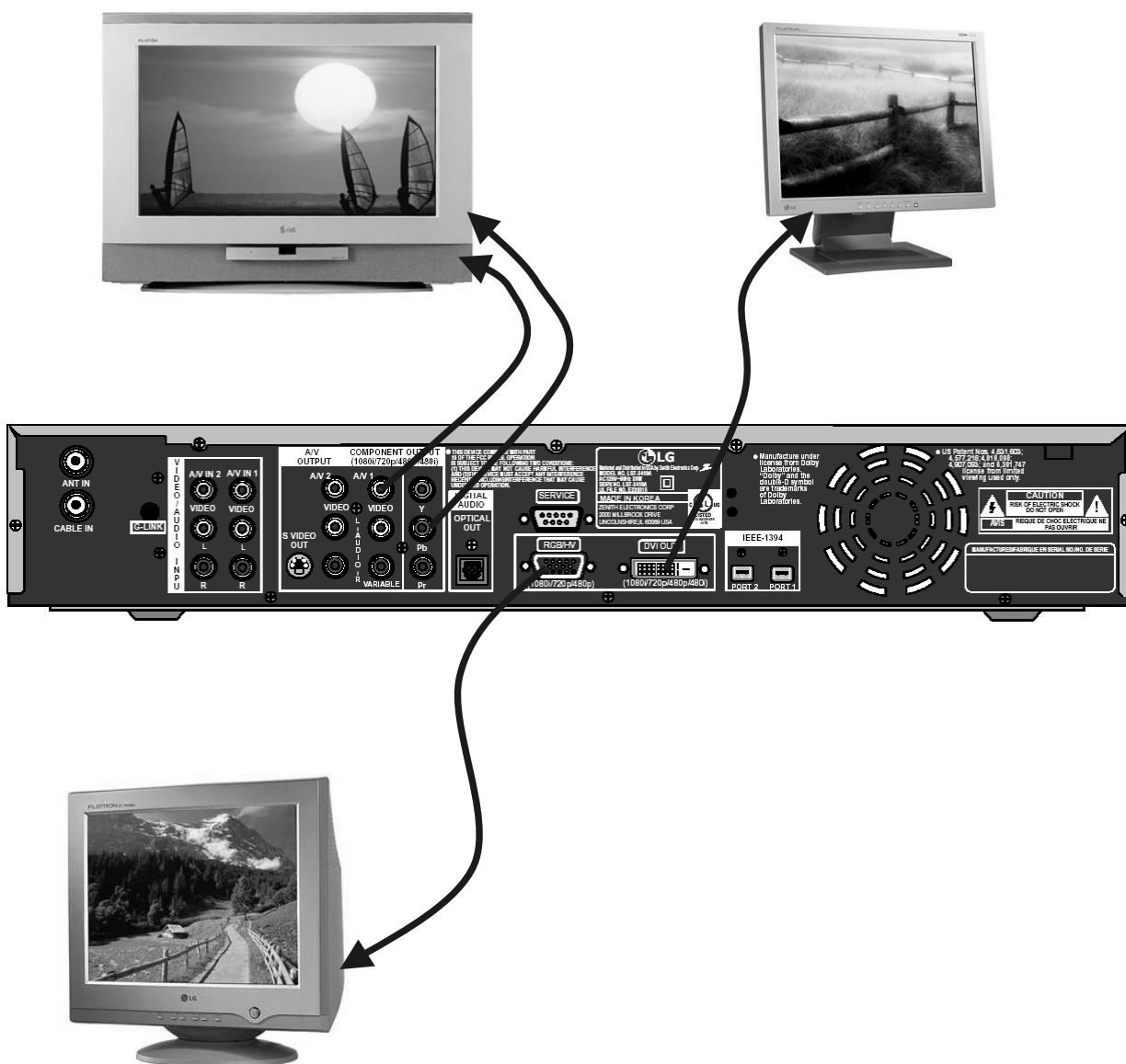
#### 4) Resolution Test

The resolution is displayed as shown at the below, and when the initial menu is disappeared, you can change the resolution by selecting the resolution list.

If you select 'RGB,' the menu can be displayed at the RGB monitor only, and 'YPbPr' at the TV supporting the YPbPr only. If you connect the output terminal to the TV or monitor not suitable for the resolution, nothing will be displayed.



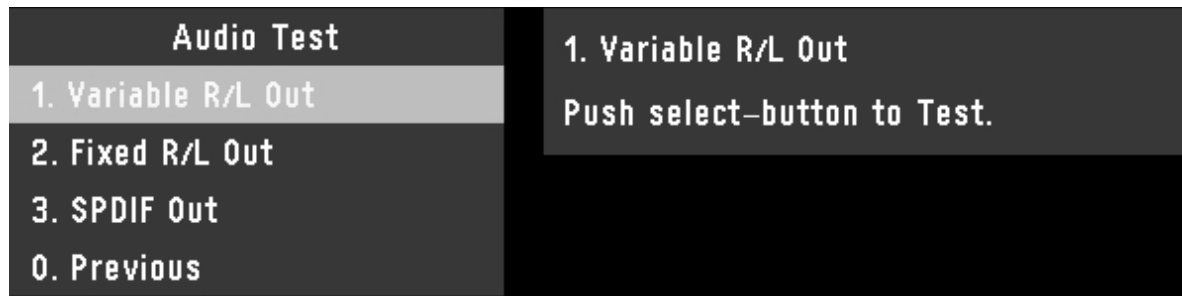
< Fig6 > Resolution Test Menu



## 5) Audio Test

The resolution is displayed as shown at the below, and when the initial menu is disappeared, you can change the resolution by selecting the resolution list.

If you select 'RGB,' the menu can be displayed at the RGB monitor only, and 'YPbPr' at the TV supporting the YPbPr only. If you connect the output terminal to the TV or monitor not suitable for the resolution, nothing will be displayed.

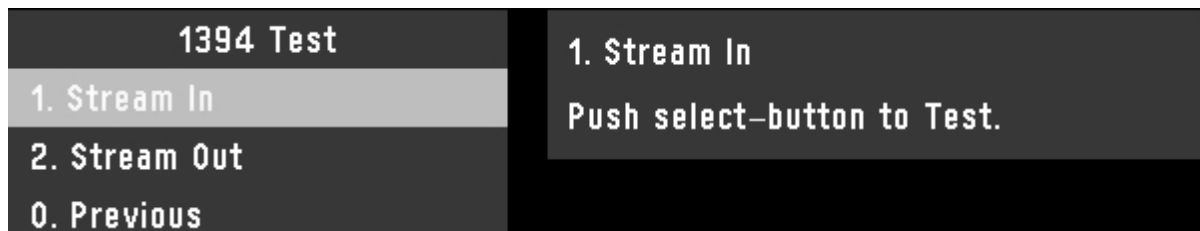


< Fig7 > Resolution Test Menu

Other Audio outputs (Fixed, SPDIF) are muted at the time of Variable Audio output test.  
Other Audio outputs (Variable, SPDIF) are muted at the time of Fixed Audio output test.  
Other Audio outputs (Fixed, Variable) are muted at the time of SPDIF Audio output test.  
Audio Volume Up/Down is operated by the Volume Up/Down key of the remote controller.

A broadcasting signal entered at the ANT or the data stored at the HDD can be used as the audio source.

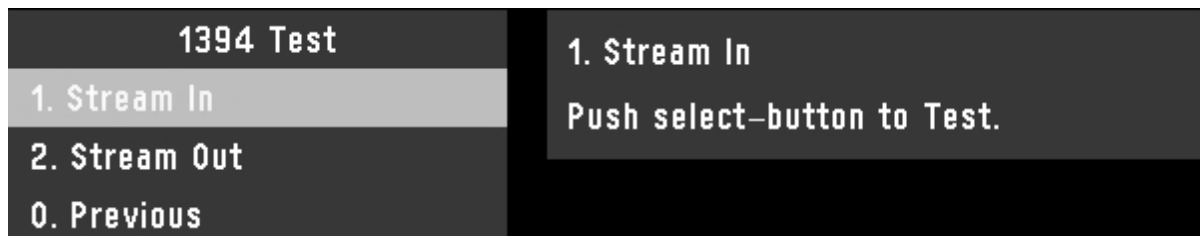
## 6) External Audio/Video Input Test



< Fig8 > External Audio/Video Input Test

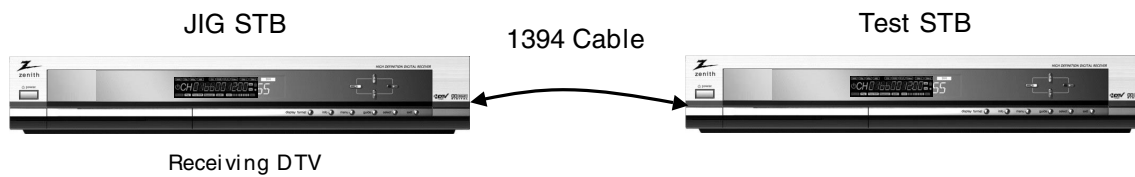
The test should be done by connecting with the audio/video external input.  
You should use the line level stereo as an audio source and the NTSC signal as an video source.

## 7) 1394 Test



< Fig9 > 1394 Test Menu

Set the Jig STB to the DTV channel possible to be separated for the test.  
You can not perform this test with 1394 Device(D-VHS, MV Camcorder) connected.  
At this time, the test can be done only if each STB has its own 1394 ID(DTCP).



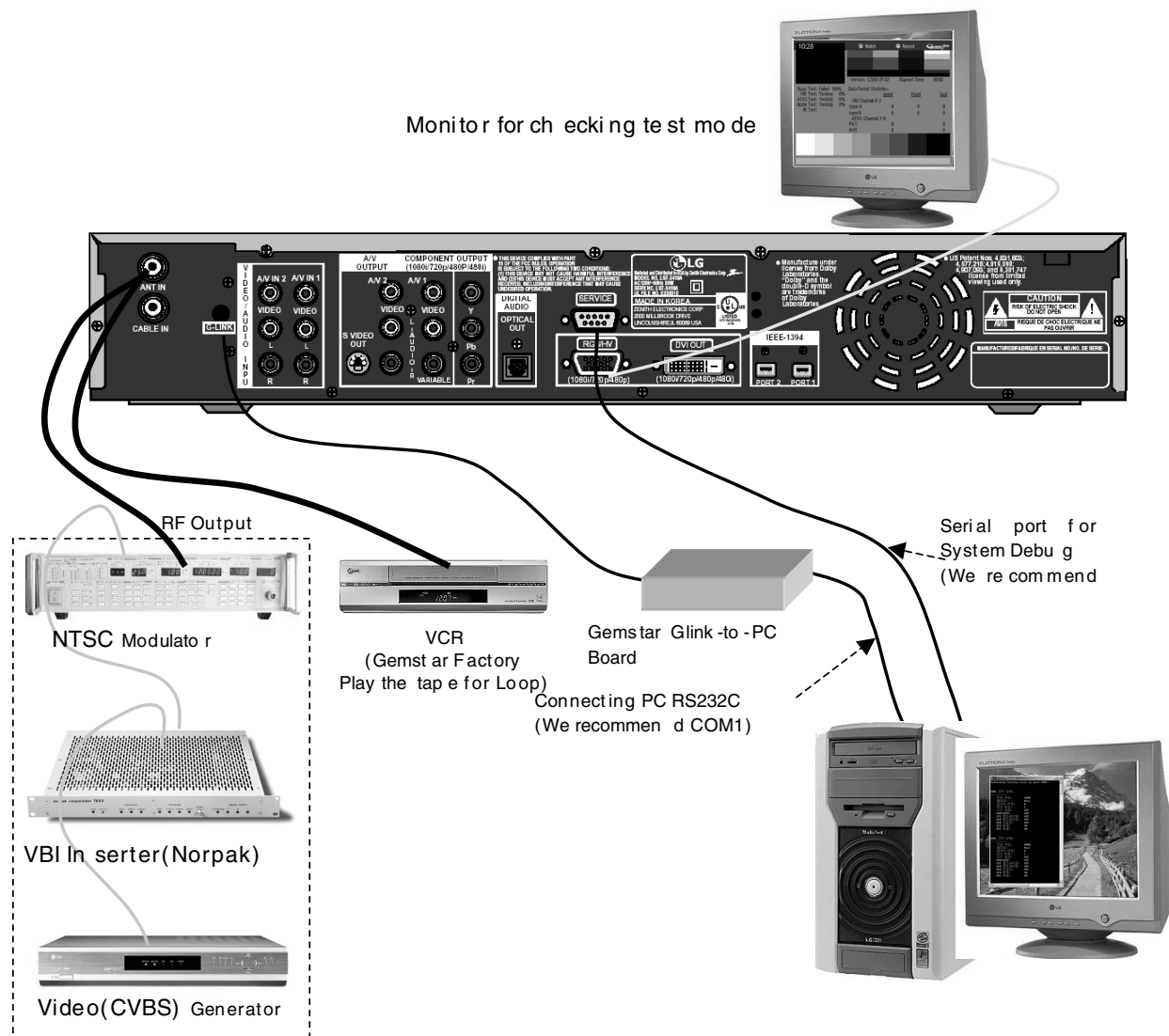
< Fig10 > 1394 Test Configuration

## 8) Gemstar Test



< Fig11 > Gemstar Test Menu

Diagram for testing



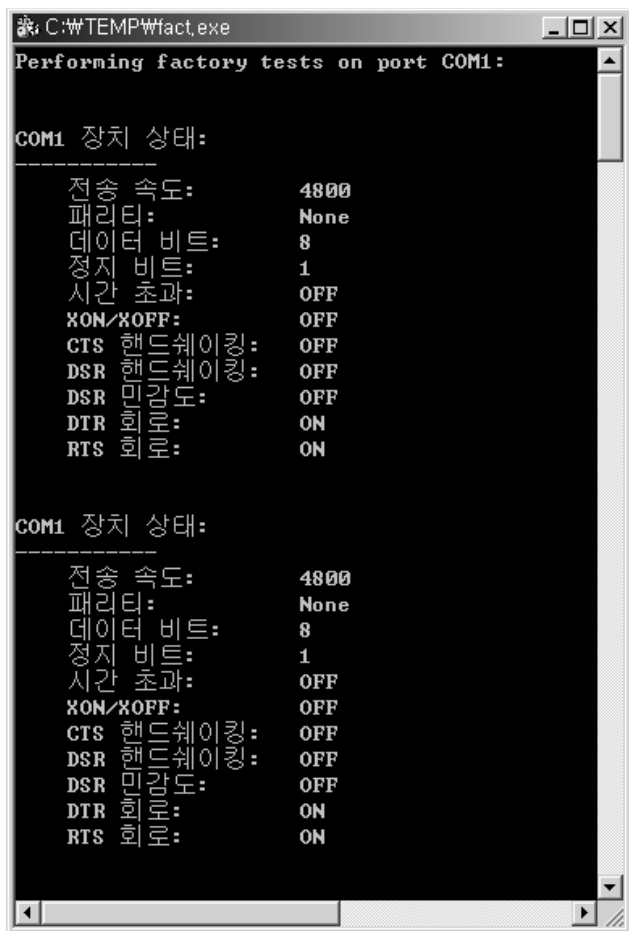
< Fig12 > Gemstar Test Configuration

Setup for the initial environment

1. Connect with the same method as the previous 'Gemstar Test Configuration connection method'.
2. Copy 'fact.exe' to the appropriate location of the PC for testing Glink and IR.

Test method

1. Set Factory Test to 'ON' and Duplex to 'Full' of the DIP switch on the Gemstar Glink-to-PC Board.
  2. Connect the RF signal containing Gemstar UPG Data to ANT IN of LST-3410A or play the VCR containing the tape for loop and connect its RF output to ANT IN of LST-3410A.
  3. Tune LST-3410A to the channel with the RF signal containing Gemstar Data.
  4. Execute 'fact.exe' at the DOS prompt for testing Glink and IR, or double click it at the Windows. Then, the program will be executed for testing Glink and IR at the COM1 port of the PC.
- This will be continued until the COM1 window is closed by executing it once only.



```
C:\TEMP\fact.exe
Performing factory tests on port COM1:

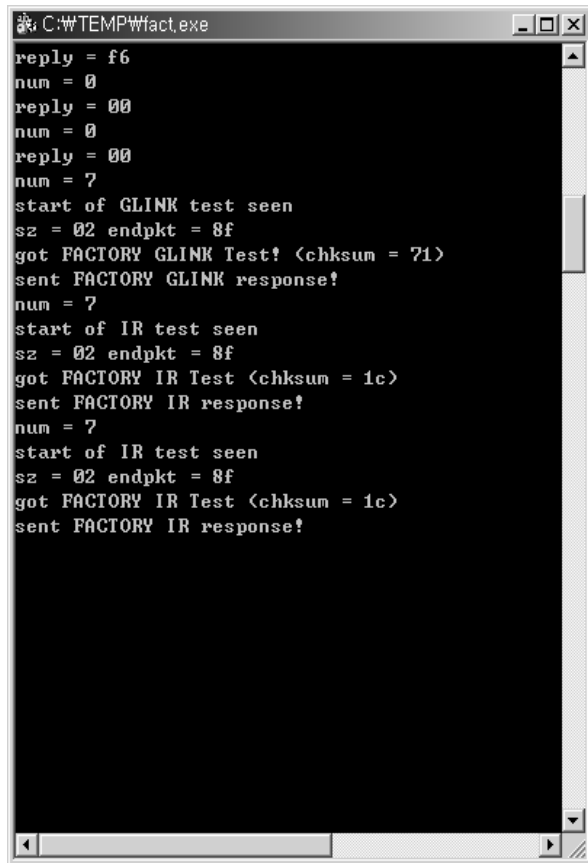
COM1 장치 상태:
-----
전송 속도:      4800
패리티:        None
데이터 비트:    8
정지 비트:      1
시간 초과:     OFF
XON/XOFF:      OFF
CTS 핸드셰이킹: OFF
DSR 핸드셰이킹: OFF
DSR 민감도:     OFF
DTR 회로:      ON
RTS 회로:      ON

COM1 장치 상태:
-----
전송 속도:      4800
패리티:        None
데이터 비트:    8
정지 비트:      1
시간 초과:     OFF
XON/XOFF:      OFF
CTS 핸드셰이킹: OFF
DSR 핸드셰이킹: OFF
DSR 민감도:     OFF
DTR 회로:      ON
RTS 회로:      ON
```

< Fig13 > Screen shot executing fact.exe

5. With the above step 4 executed, enter into the Gemstar Factory Test Mode by one of the following two methods.

Press the hot key (it will be supported later) of LST-3410A for entering into Gemstar Factory Test Mode.



```
C:\TEMP\fact.exe
reply = f6
num = 0
reply = 00
num = 0
reply = 00
num = 7
start of GLINK test seen
sz = 02 endpkt = 8f
got FACTORY GLINK Test! <chksum = 71>
sent FACTORY GLINK response!
num = 7
start of IR test seen
sz = 02 endpkt = 8f
got FACTORY IR Test <chksum = 1c>
sent FACTORY IR response!
num = 7
start of IR test seen
sz = 02 endpkt = 8f
got FACTORY IR Test <chksum = 1c>
sent FACTORY IR response!
```

< Fig14 > Screen shot for testing Glink and IR



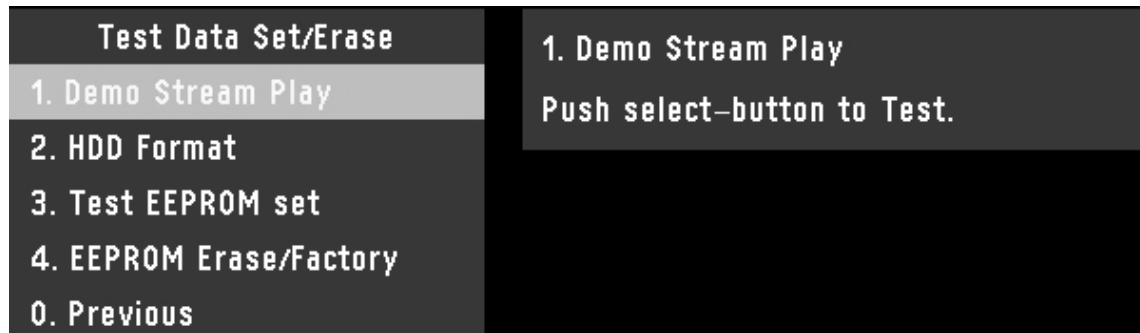
< Fig15 > Screen shot for testing Glink and IR

6. Sometimes, even though the Gemstar board is normal, the test gets failed. So, if failed for 4 items (Flash Test, VBI Test, Glink Test, IR Test) to test, you may determine it normal when getting 'pass' by performing the test once more.

Press 'TV GUIDE' of the remote controller to exit from Gemstar Test Mode.



## 9) Factory Data Set/Erase



< Fig16 > Factory Data Set/Erase Menu

- Demo Stream Play  
It plays the demo stream stored at the HDD.
- HDD Format  
It deletes all stored streams for the test and unnecessary files.  
Do not delete the demo stream at the time of the HDD format.
- Test EEPROM set  
In order to reduce the test time, set channel map, favorite channel, and time information suitable for the test environment.
- EEPROM Erase/Factory set  
It deletes channel map, favorite channel, time information and so on stored at the EEPROM for the test and set the EEPROM to the North America type.  
Time setting ?

## 10) Factory Set/Init



< Fig17 > Factory Set/init

- This mode performs the factory setting for HDD, EEPROM, Gemstar Board, and so on at the time of the final shipment.
- The final shipment setting is as follows:
  - 1) Delete the HDD area, but not the demo data
  - 2) Set the EEPROM to the following values.
    - > Channel Map => clear
    - > Favorite Channel => clear
    - > Volume => 100
    - > Last Channel => TV-2
  - 3) Initialize Gemstar => Initialize the Gemstar Board.

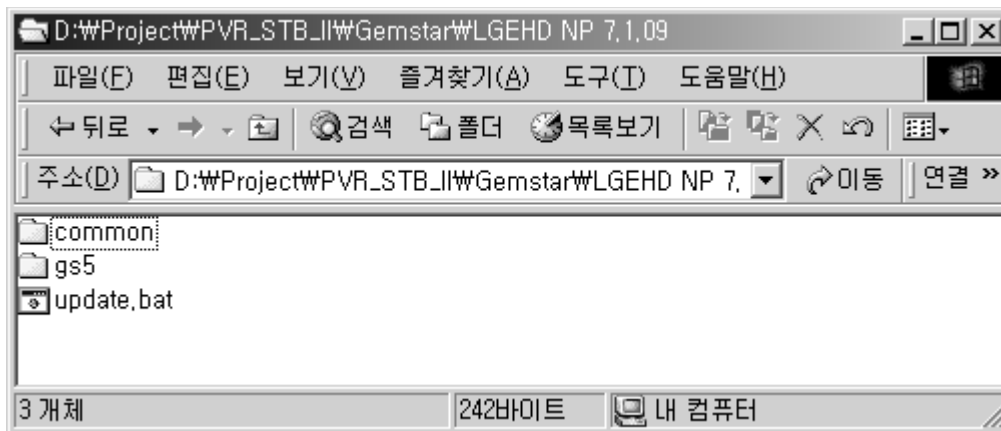
# GEMSTAR UP-GRADE

## How to upgrade the Gemstar by G-Link

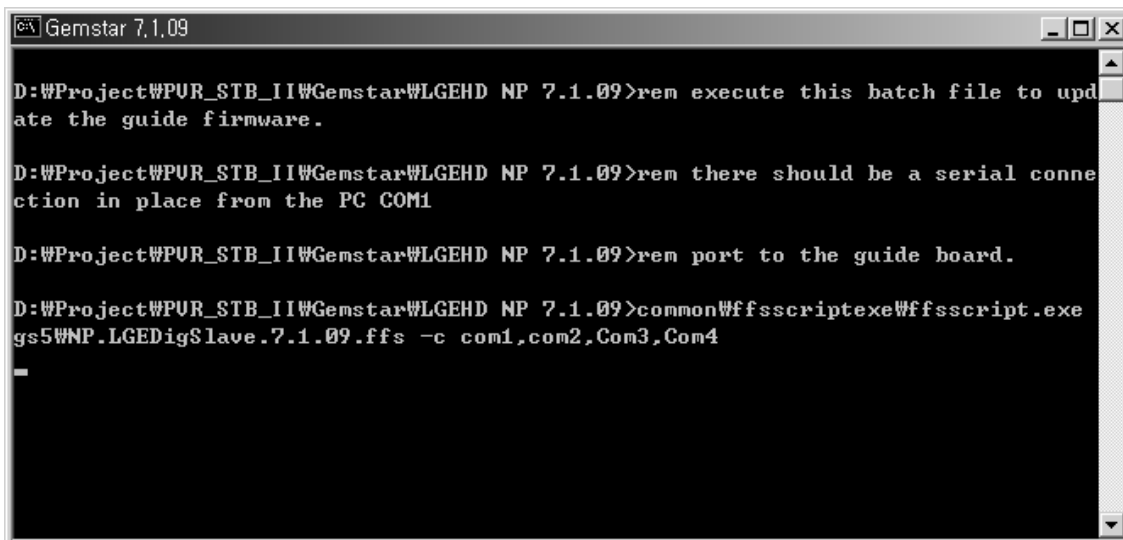
### \* Note

Upgrading the Gemstar by G-Link should have the boot ROM at the flash ROM of the Gemstar board. So, if there is no data at the flash ROM, this method is not possible, but possible for upgrading only.

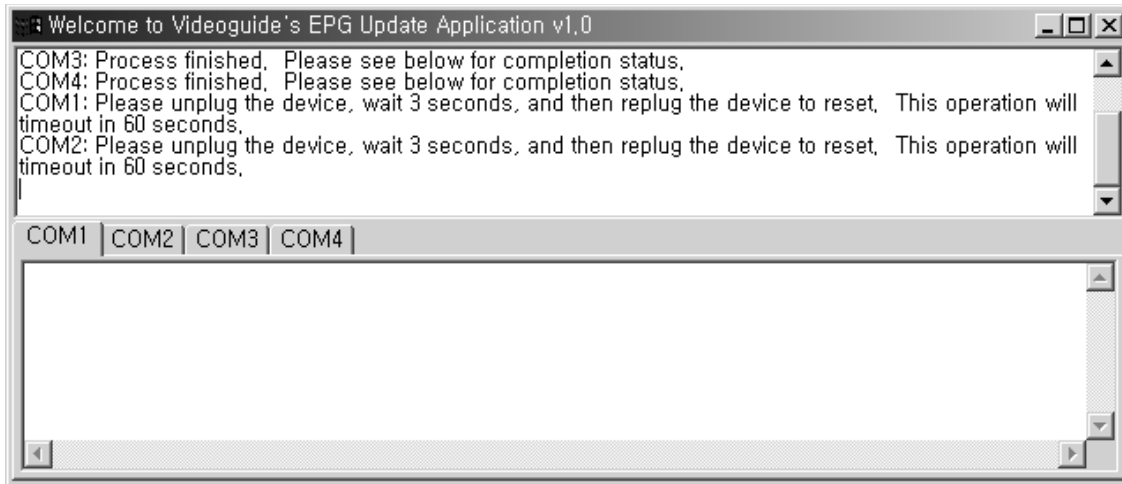
- 1) Connect the G-Link cable to the G-Link connector of the Gemstar board.  
Set the DIP switch of the Gemstar Glink-to-PC Board: Factory Test to 'Off' and Duplex to 'Full.'
- 2) Decompress data(LGEHD NP 7.1.xx.zip) for Gemstar Flash Upgrade and execute update.bat of the folder(LGEHD NP 7.1.xx) created at this time,



- 3) When you execute the above step 2, the following DOS window will be popped up.

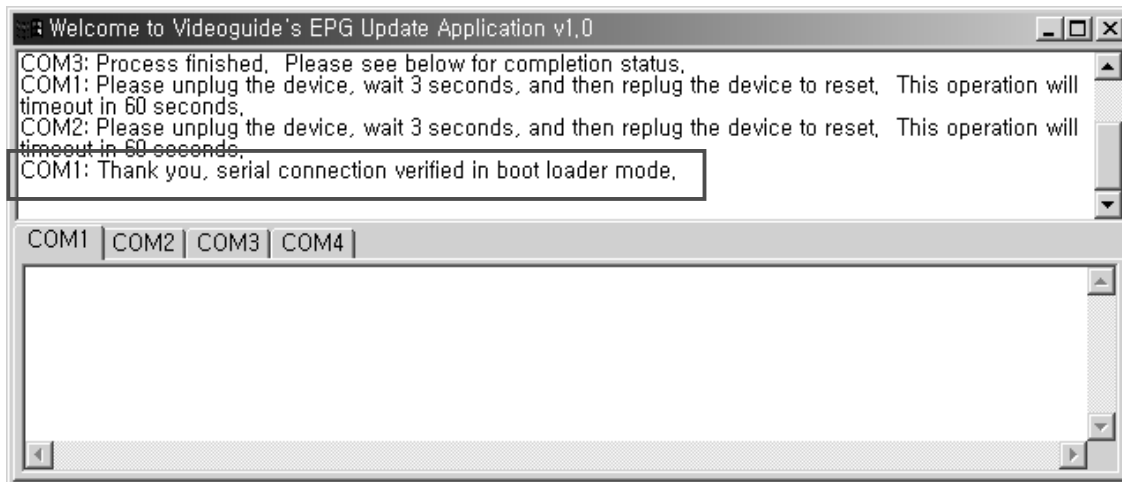


4) After the DOS window of the step 3 is popped up, the following window will be popped up.

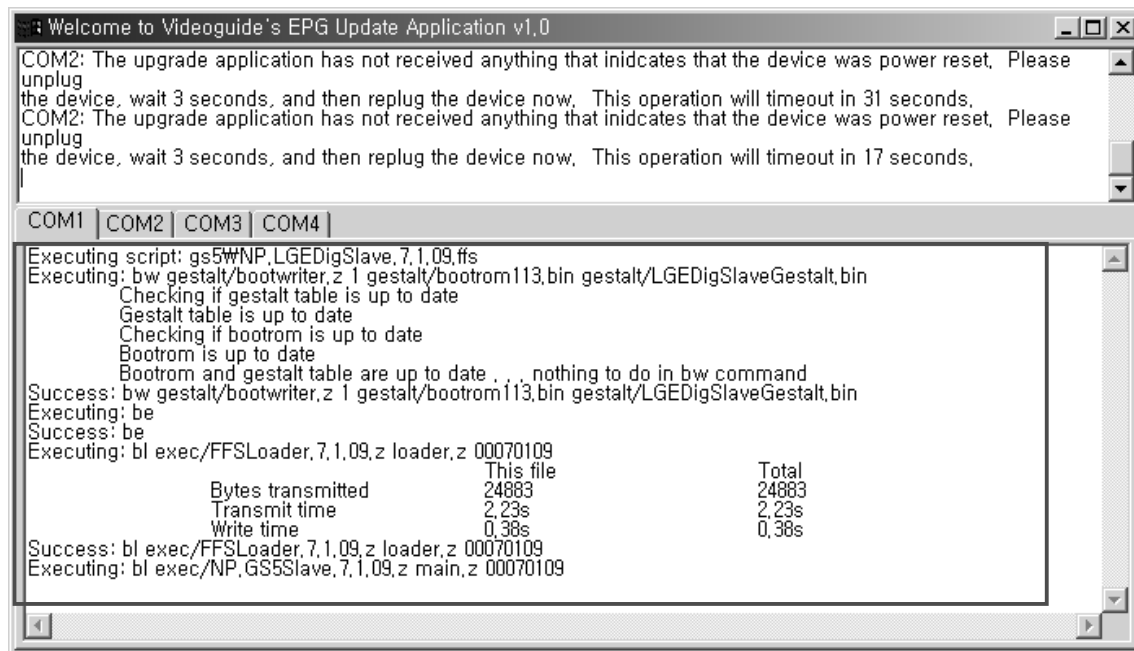


5) After the window of the step 4, apply the power to the Gemstar board. Because the live power is applied at the SET state, if the Gemstar board is built in, disconnect the plug and plug it after 3 seconds, but if not, plug the Gemstar board to the set and connect the power plug.

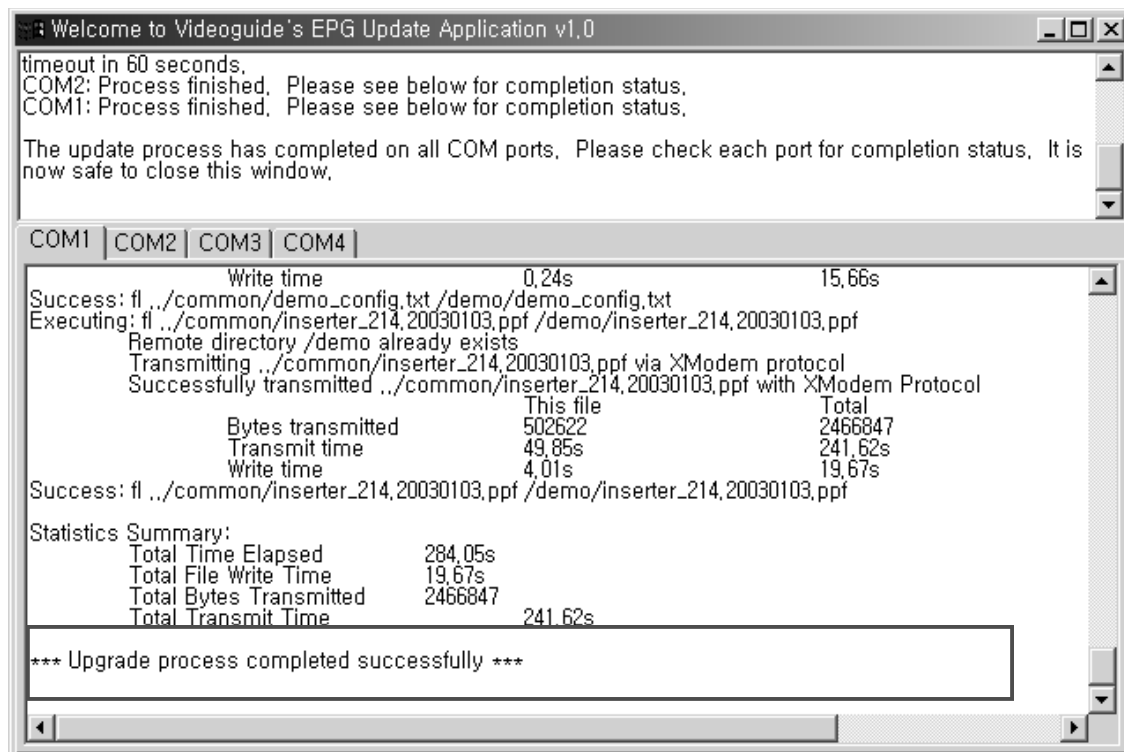
6) If the power is applied, the following message is displayed and it starts to upgrade the Gemstar.



7) The following message is displayed and upgrading continues.

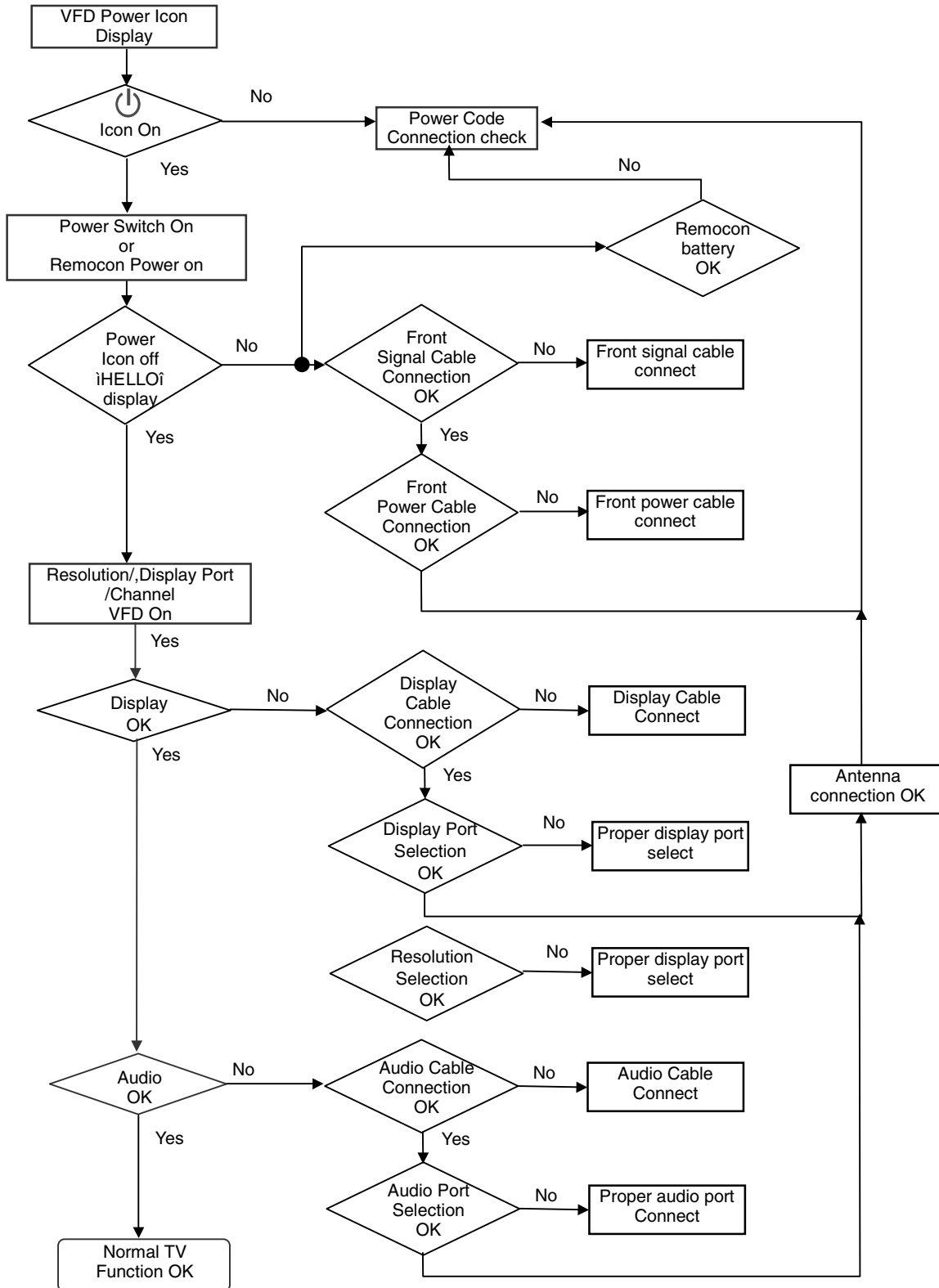


8) When upgrading is completed, the following is displayed and all steps are finished. Upgrading takes about 6 minutes even it varies depending on the upgraded flash.

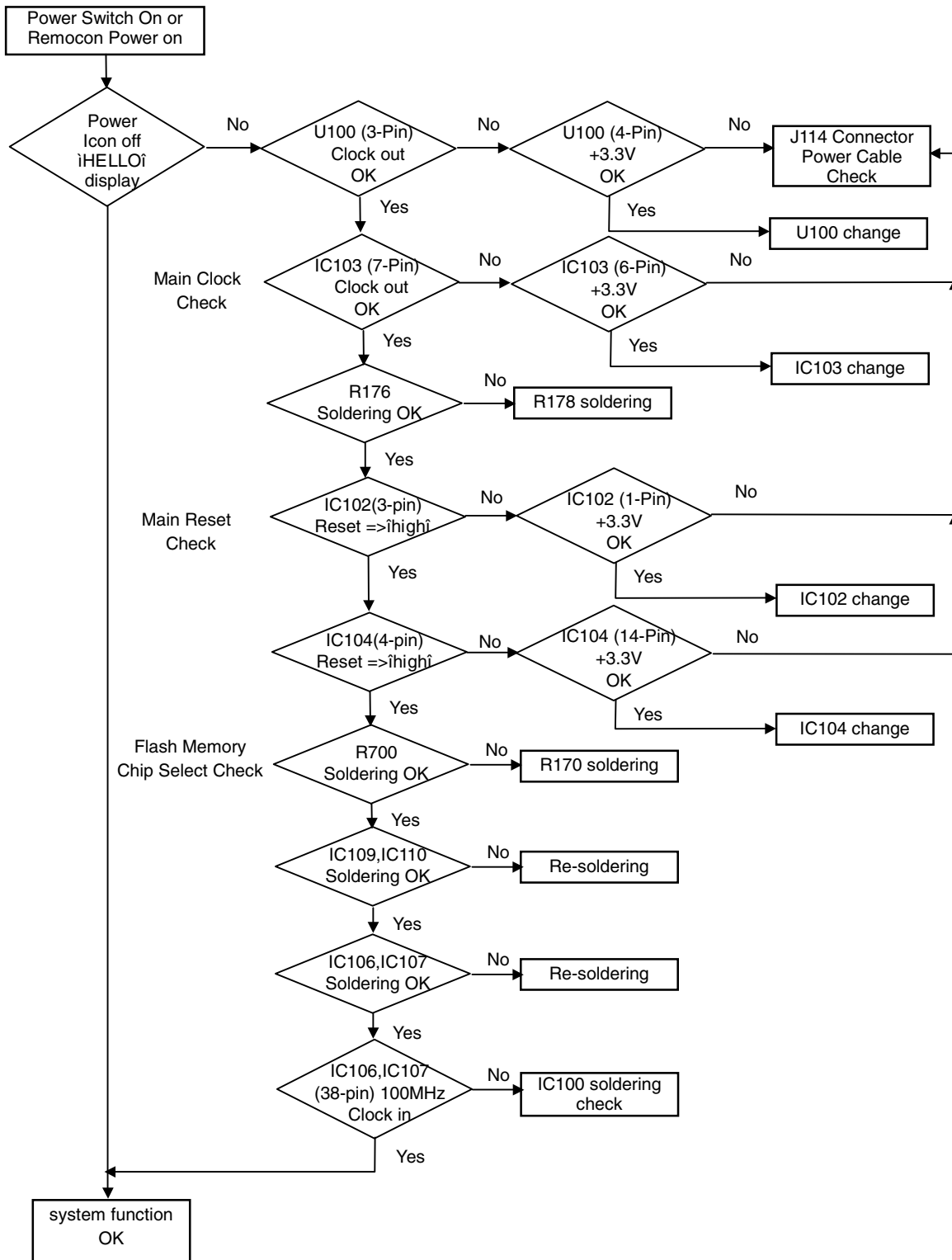


# ELECTRICAL TROUBLESHOOTING GUIDE

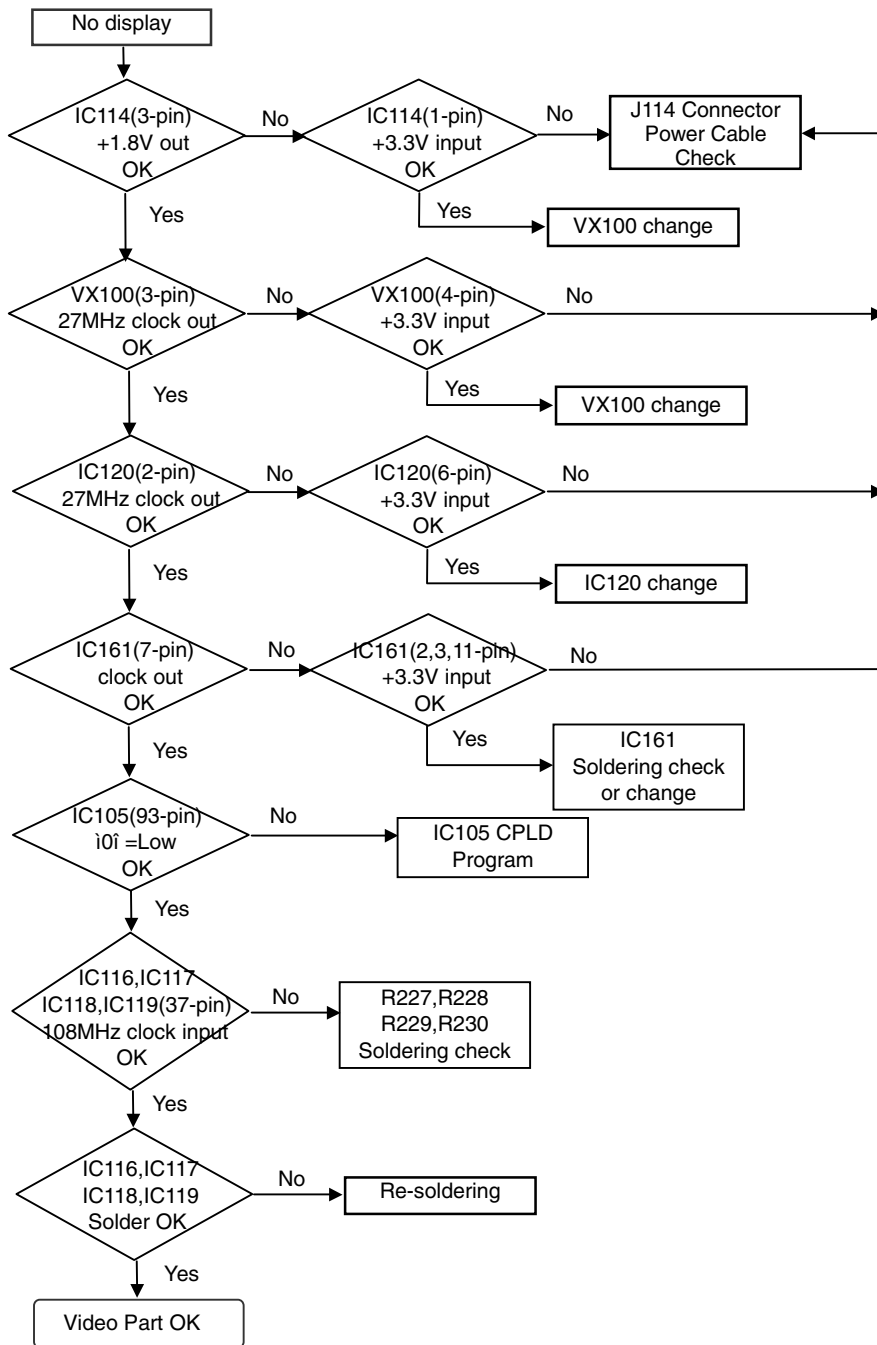
## 1. POWER ON



## 2. SYSTEM PART

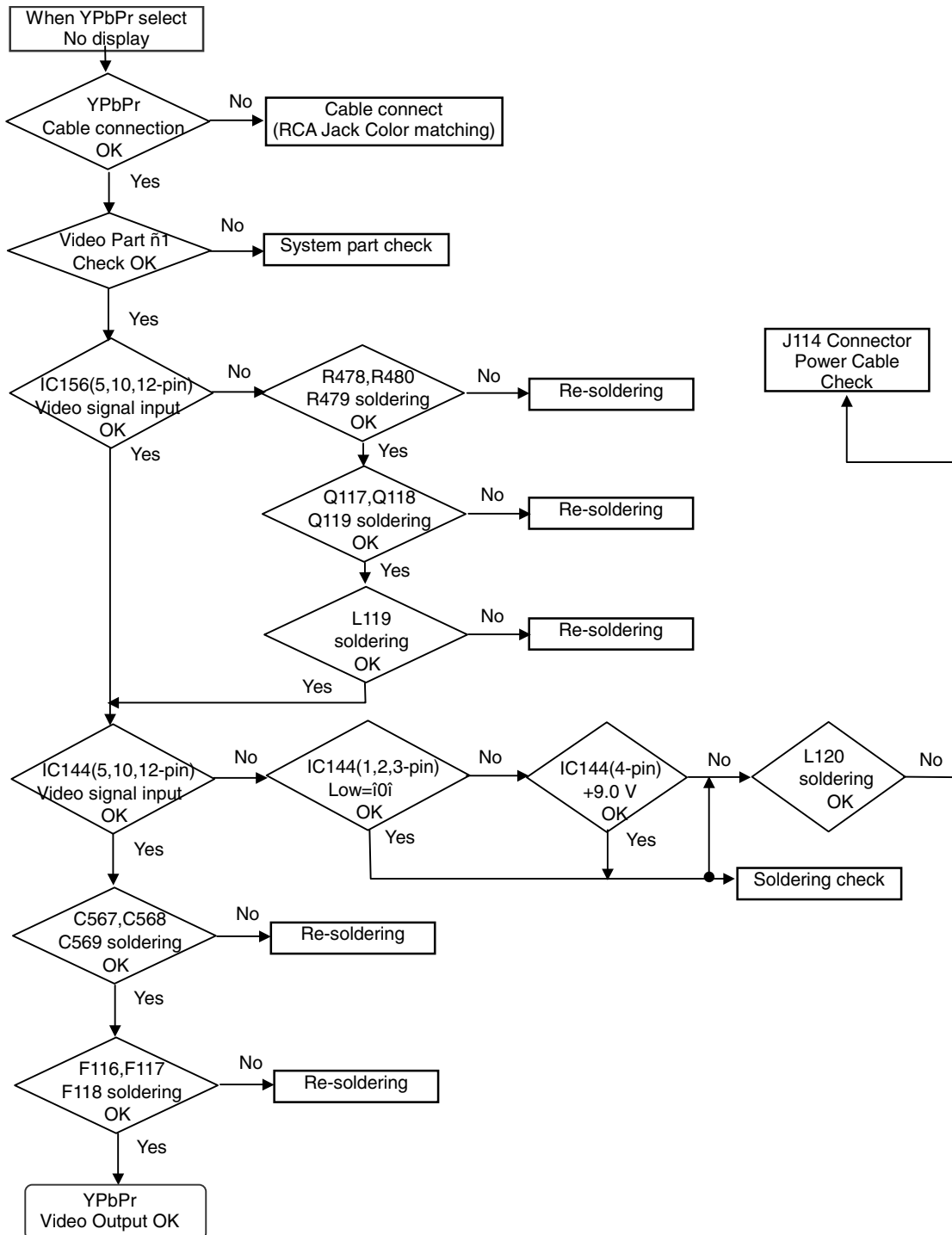


### 3. VIDEO PART-1

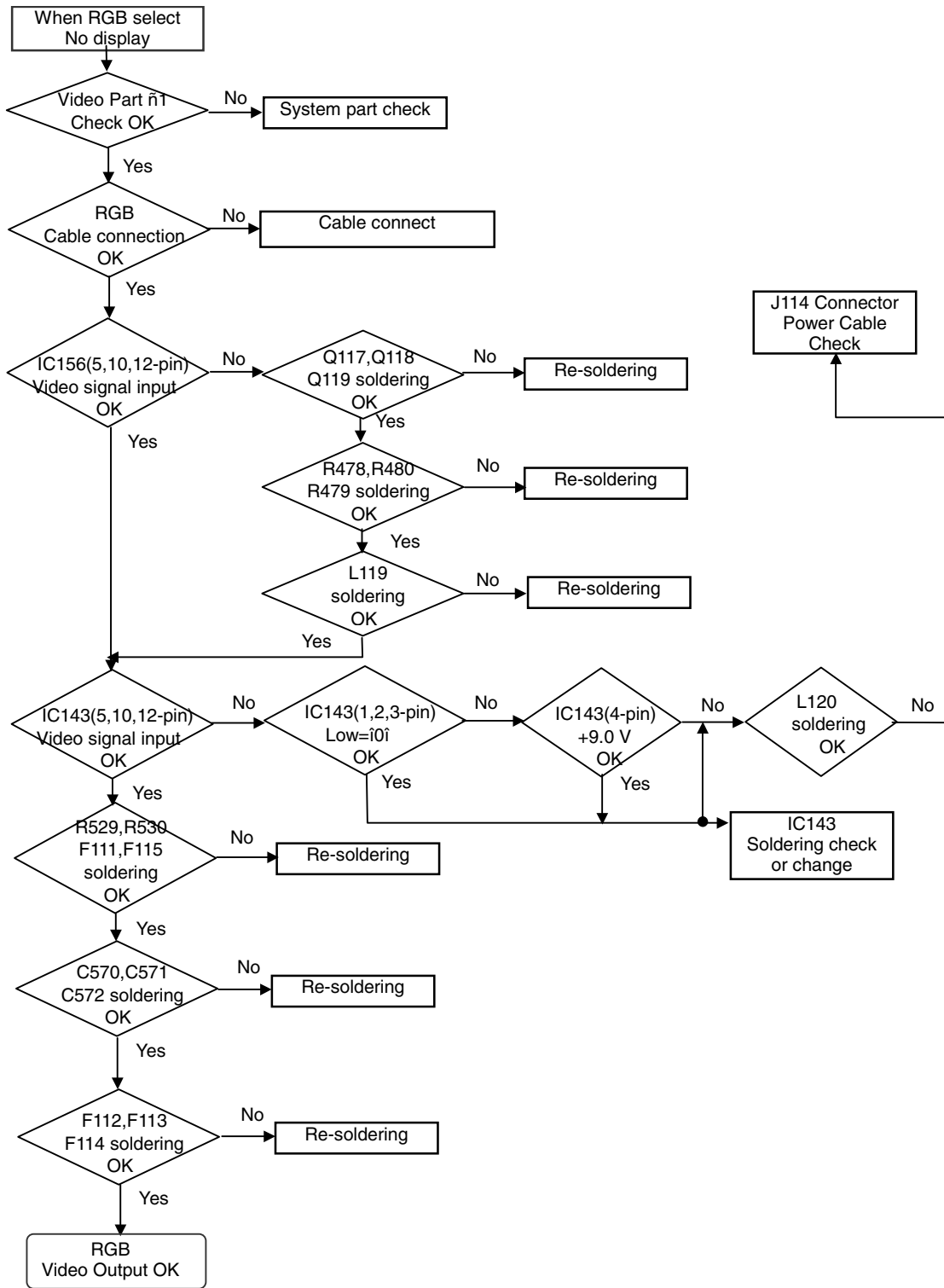




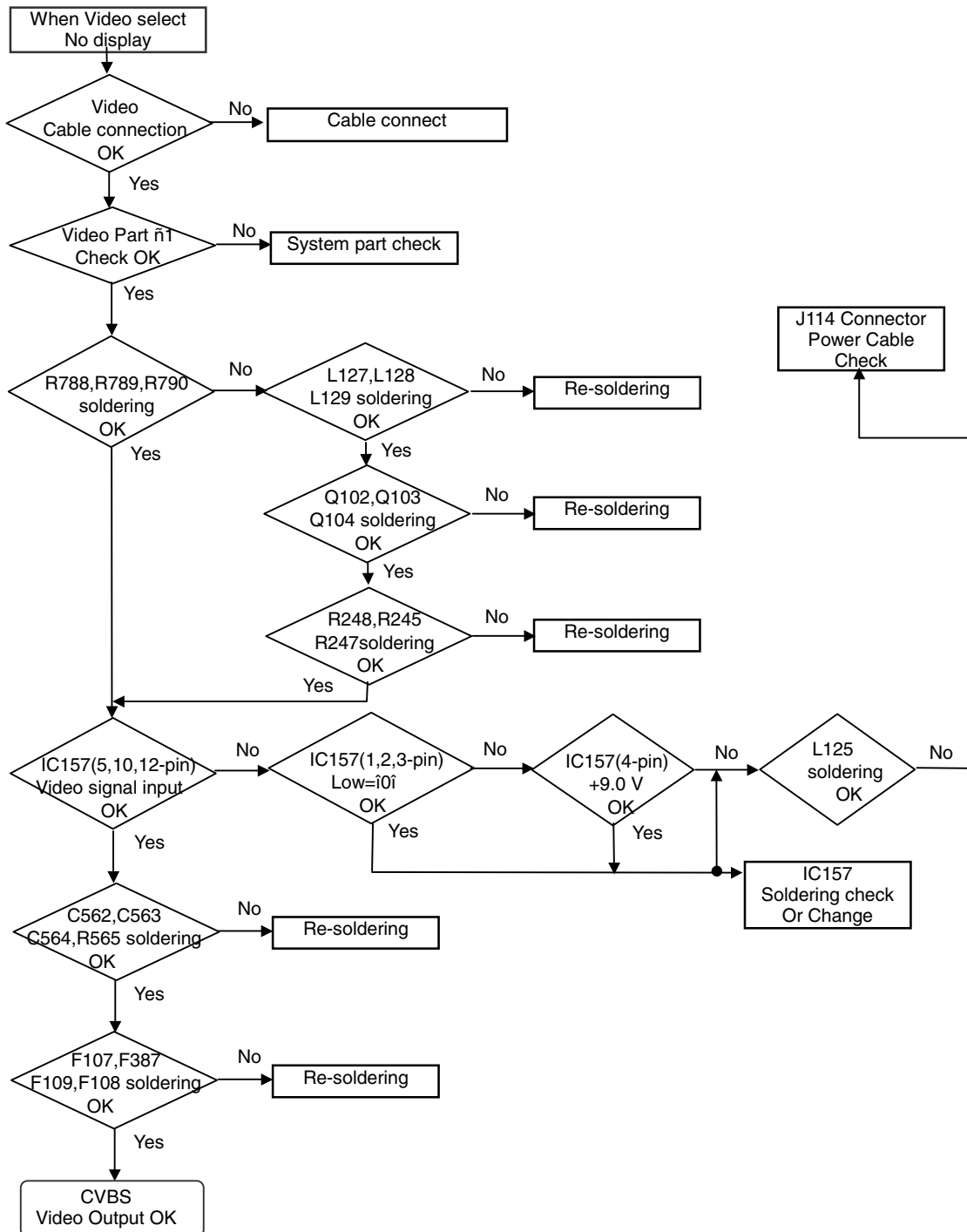
## 4. YPbPr VIDEO OUTPUT TROUBLESHOOTING



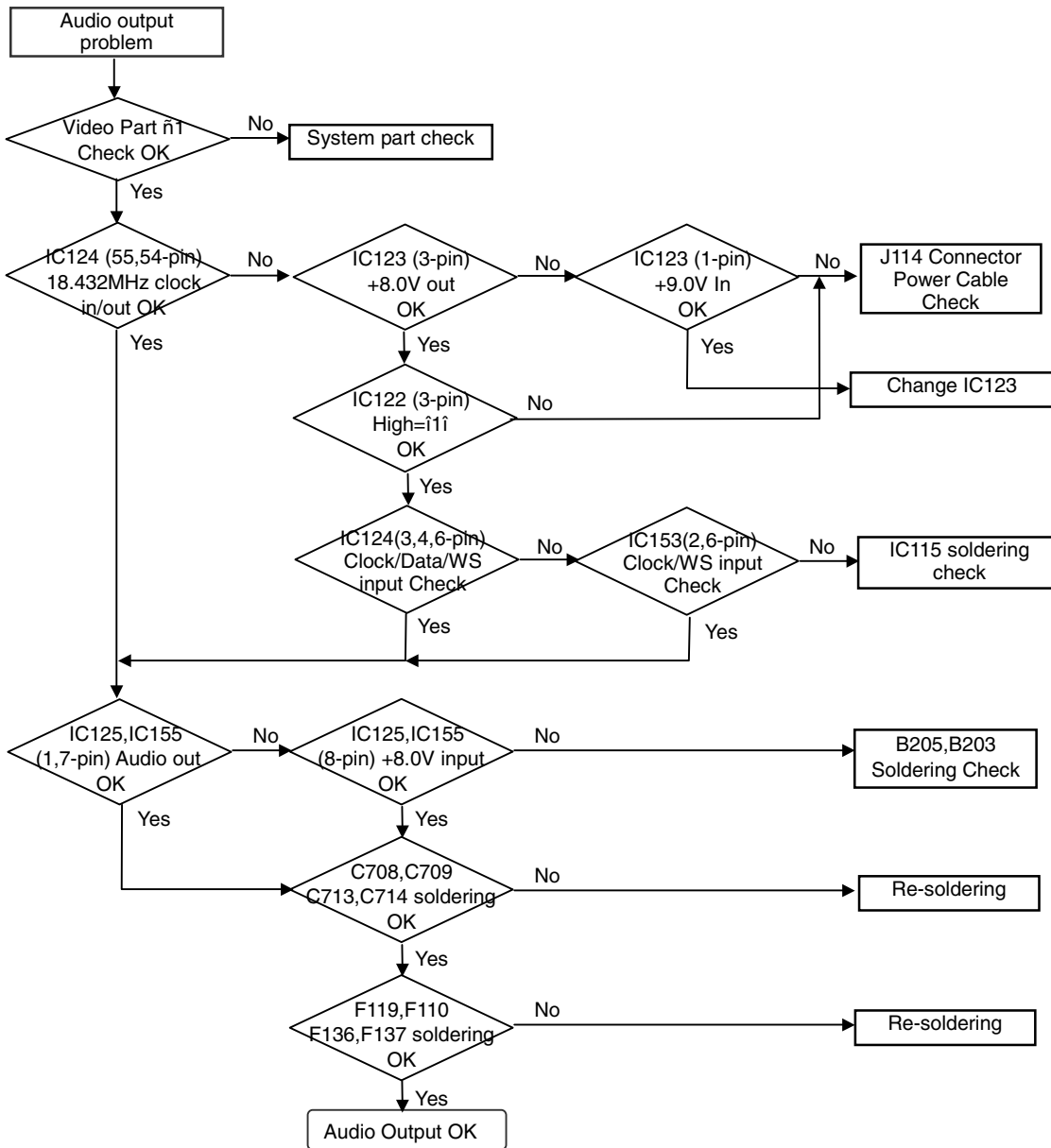
## 5. RGB VIDEO OUTPUT TROUBLESHOOTING



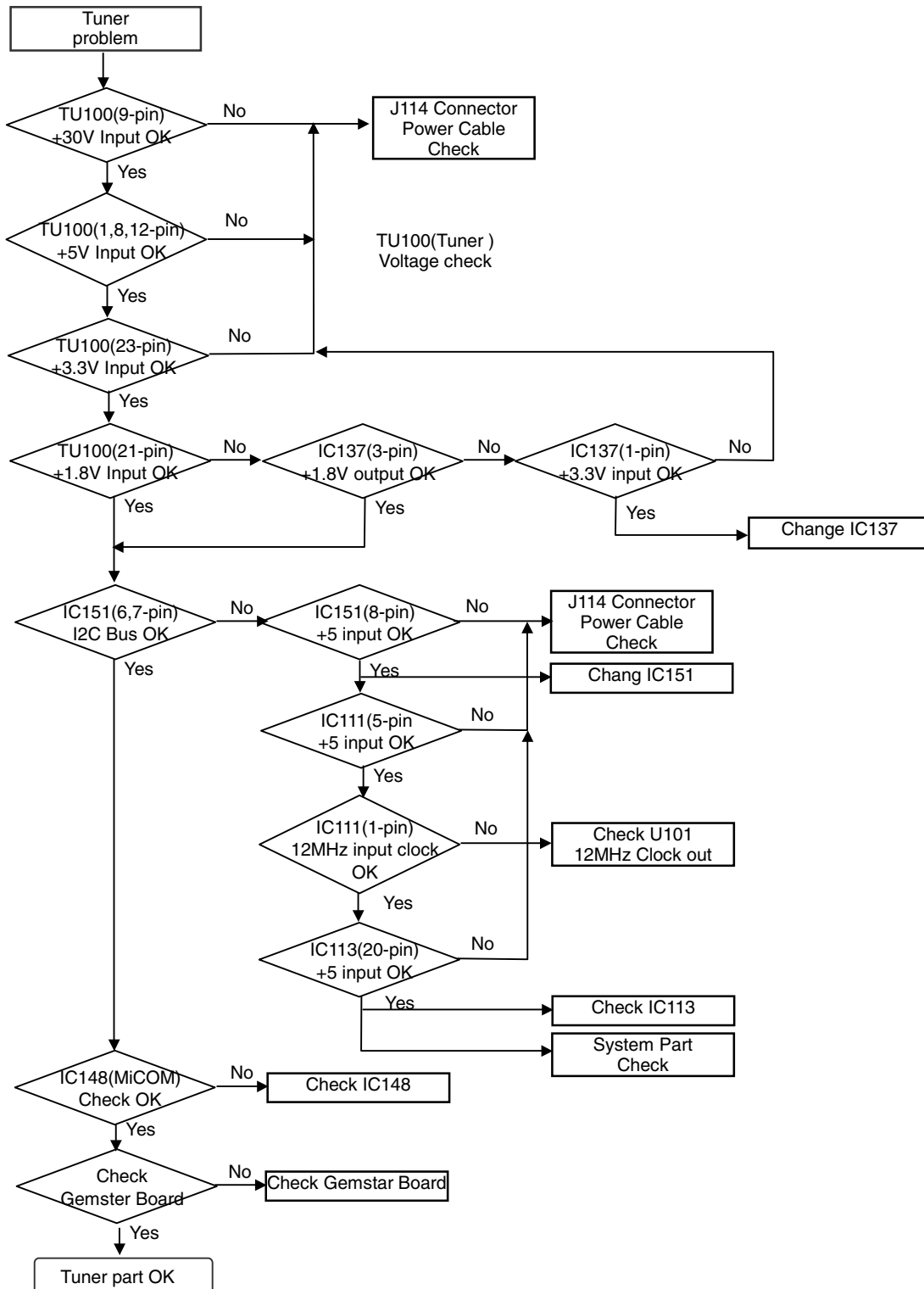
## 6. CVBS VIDEO OUTPUT TROUBLESHOOTING



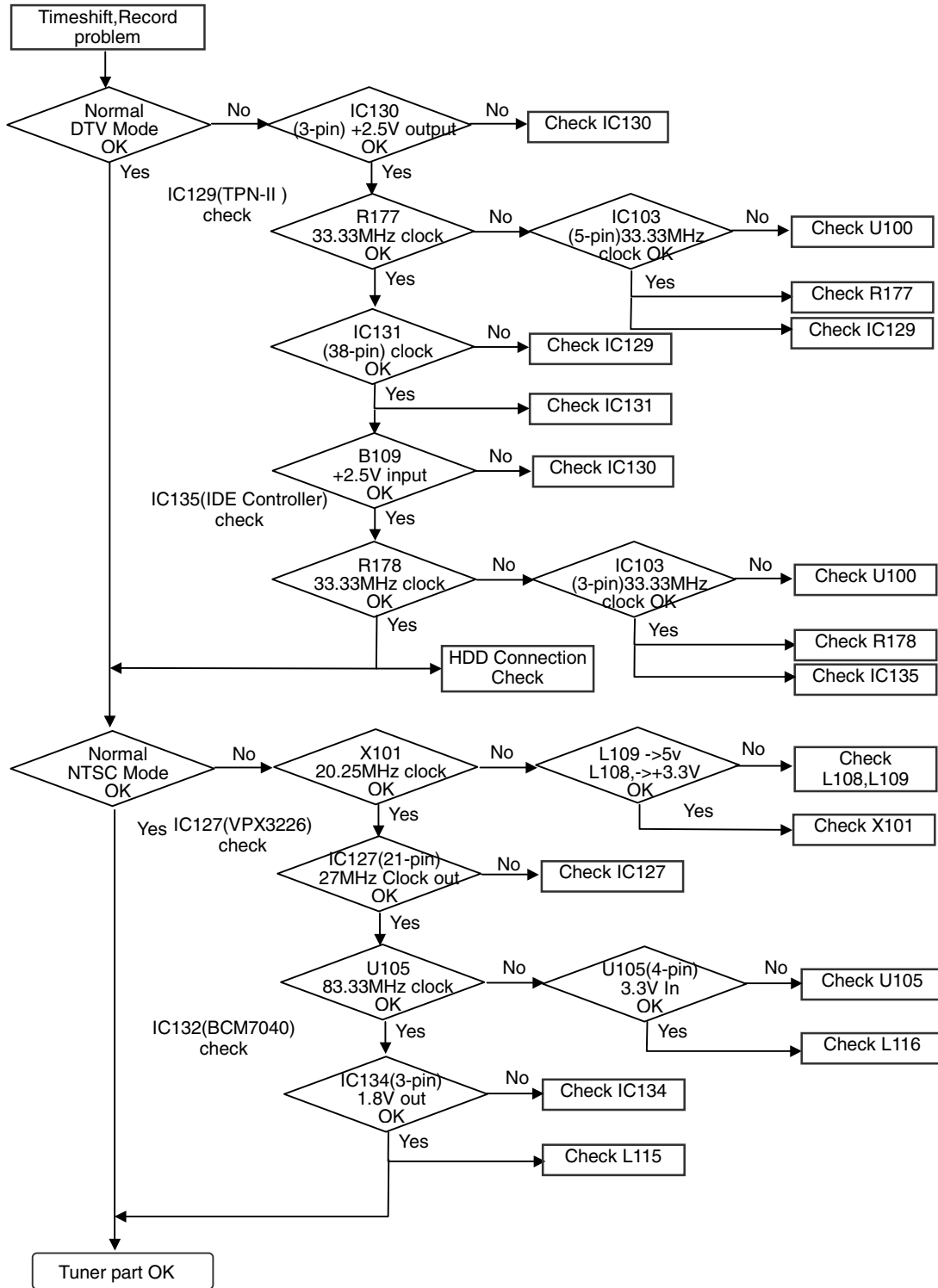
## 7. AUDIO TROUBLESHOOTING



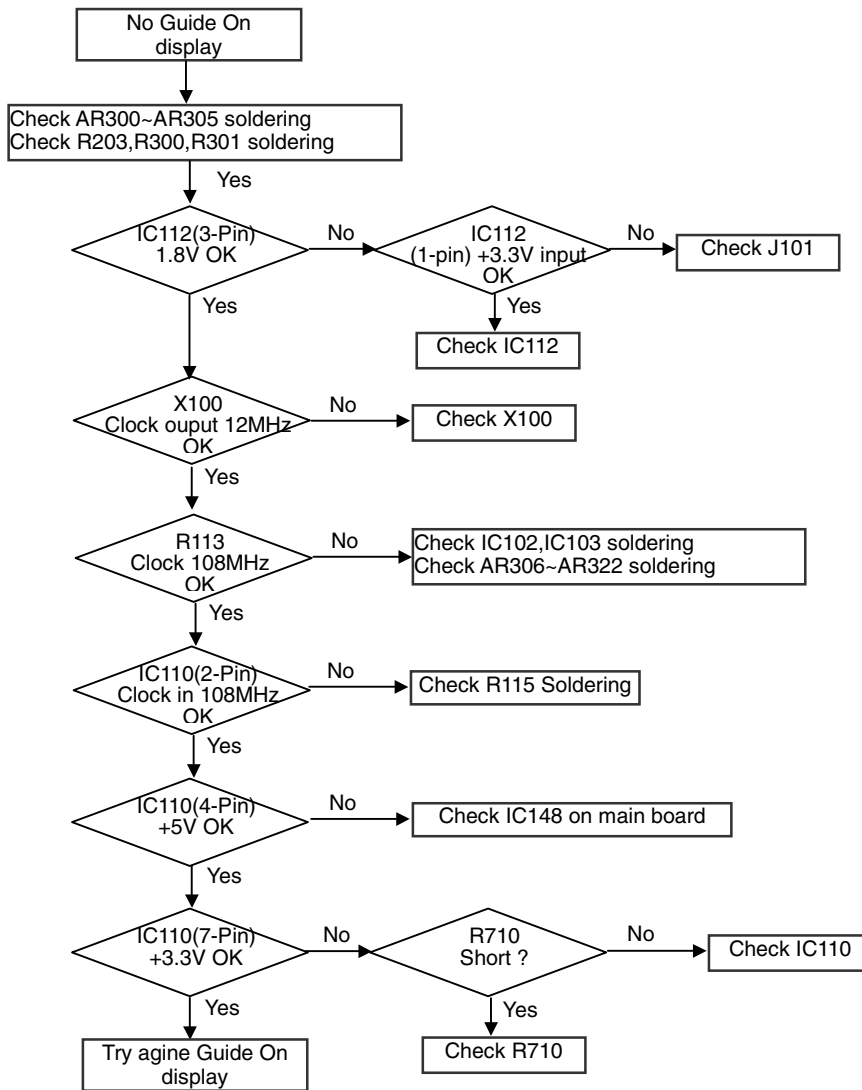
## 8. TUNER TROUBLESHOOTING

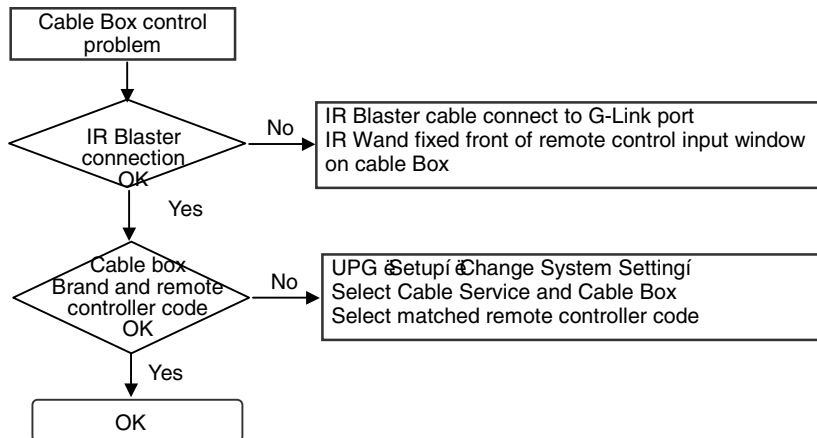
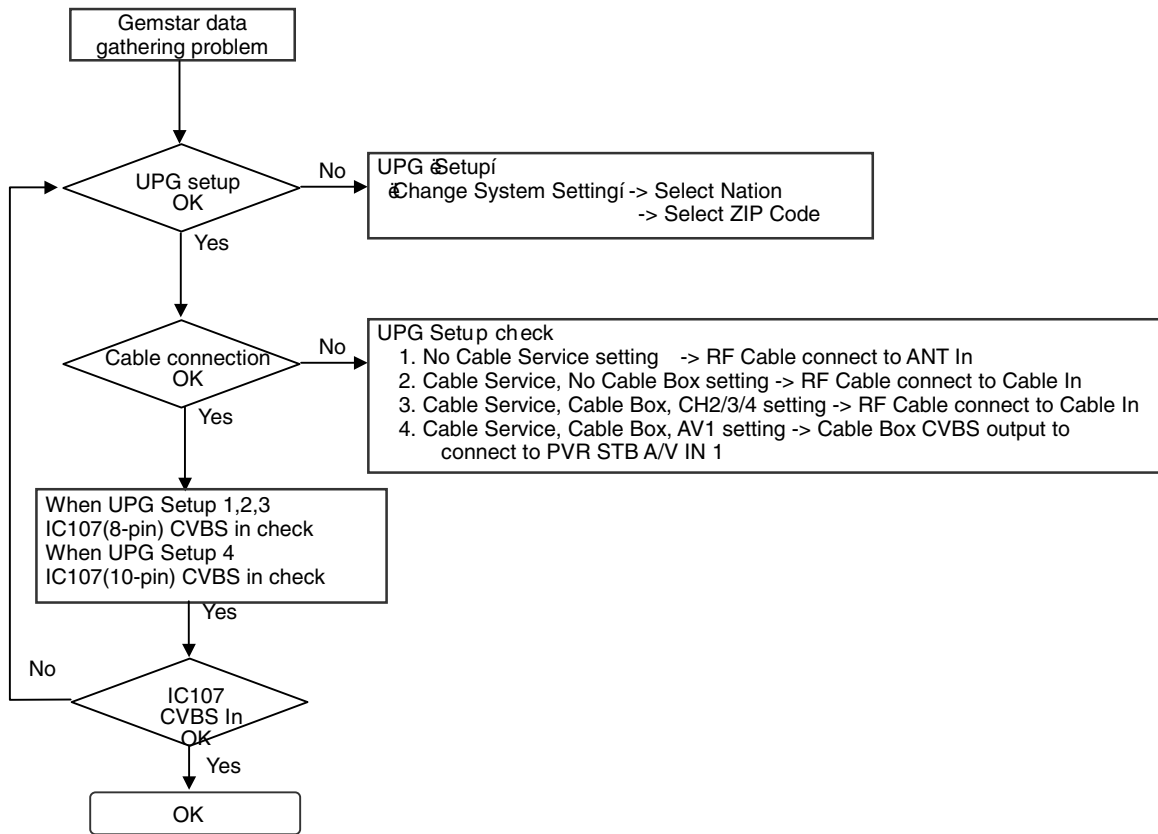


## 9. PVR PART TROUBLESHOOTING



## 10. GEMSTER TROUBLESHOOTING





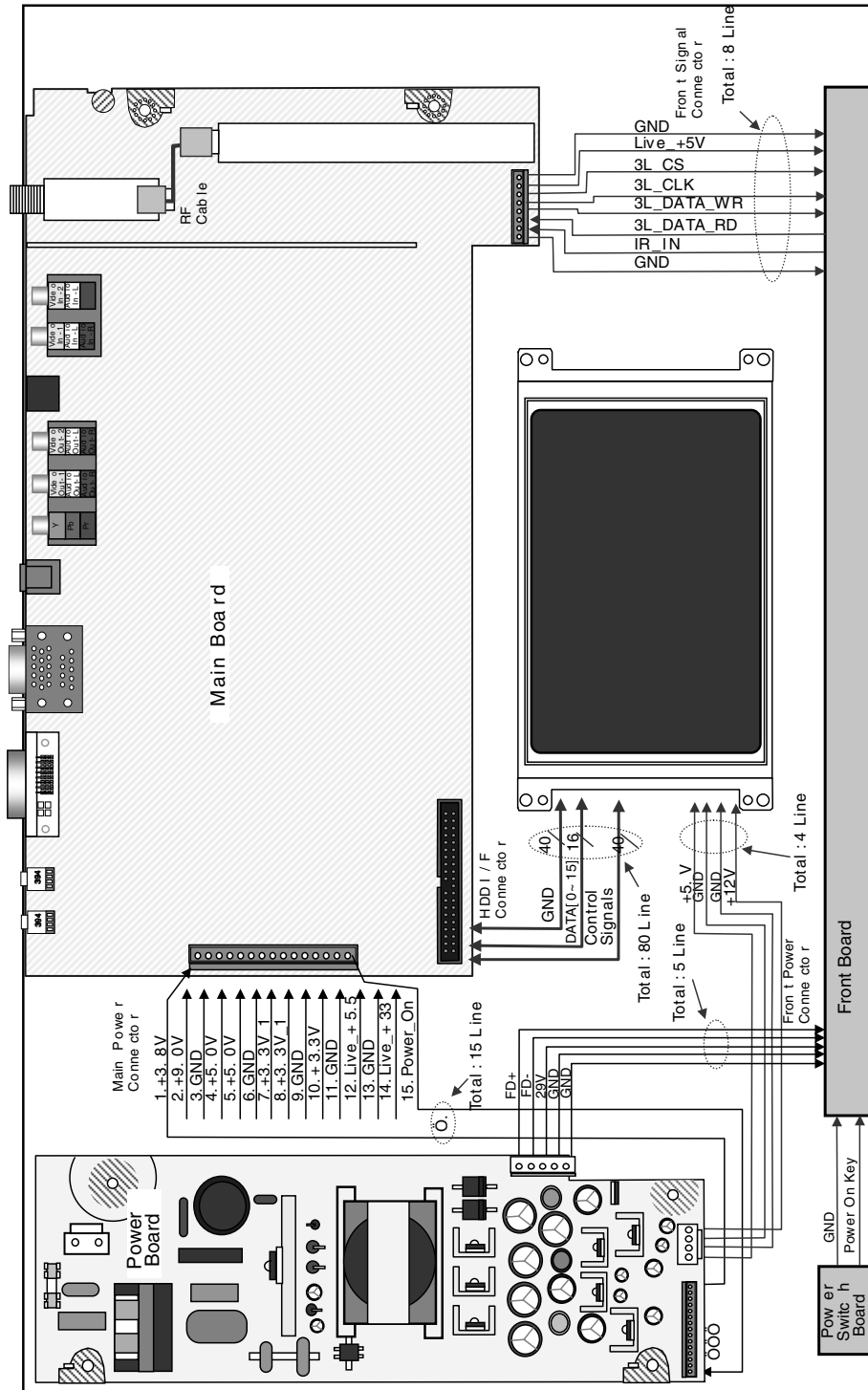


# MEMO

Handwriting practice lines consisting of 25 horizontal dotted lines.

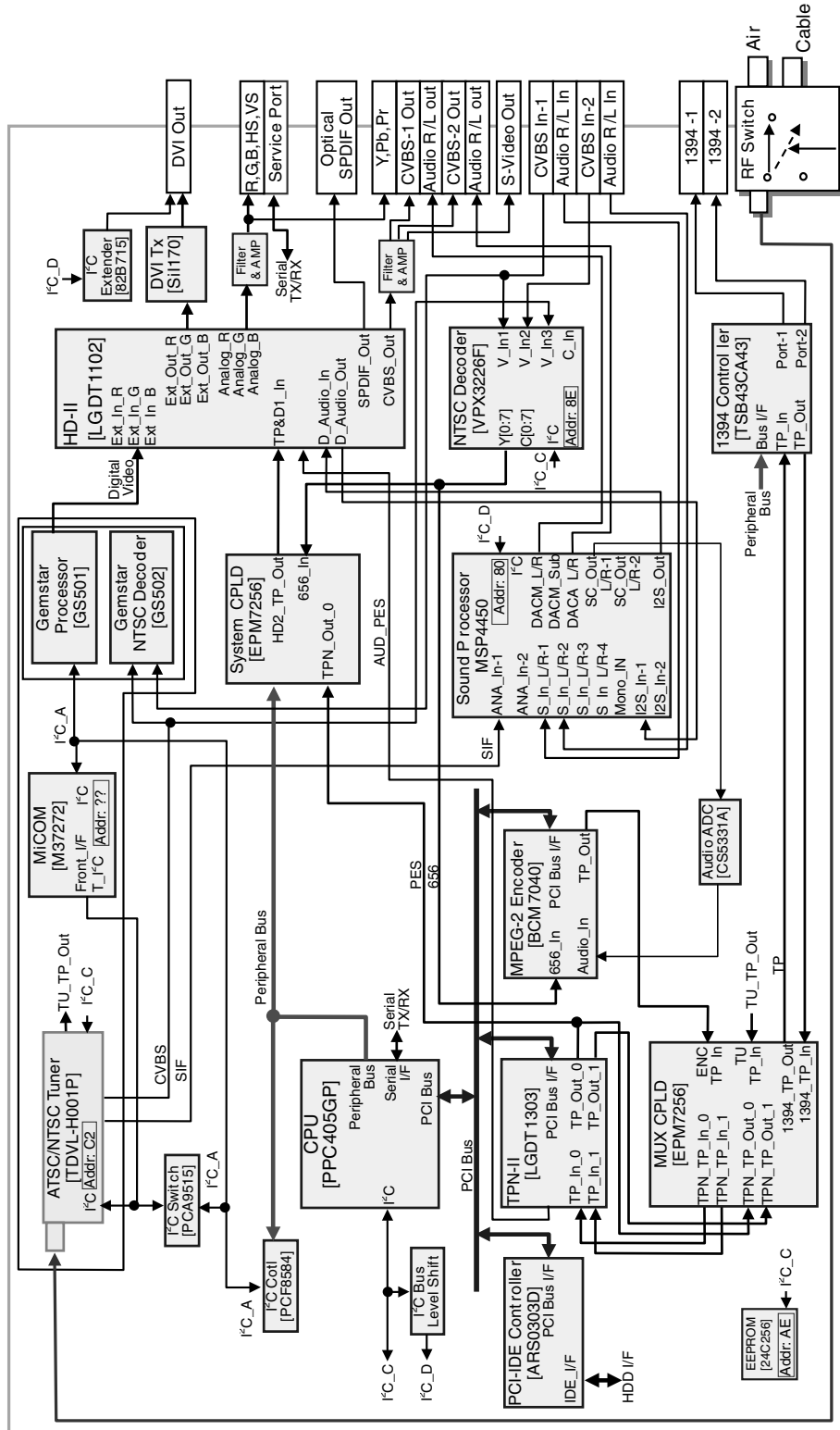
## BLOCK DIAGRAM

## 1. WIRING DIAGRAM





### 3. SIGNAL PATH DIAGRAM



# MEMO

Handwriting practice lines consisting of 25 horizontal dotted lines.

# VOLTAGE MEASURED VALUE

## 1. ALUMINUM CAPACITOR-1

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		(+)	(-)	Top/Bottom	Top/Bottom	
0.47uF	C565	3.77	0	3.77	0	
	C550	5.72	1.86	5.72	1.86	
1uF	C547	4.3	-3.49	4.3	-3.49	
	C548	-0.96	0	-0.96	0	
	C551	5	0	5	0	
	C552	8.25	5	8.25	5	
	C553	6.2	2.44	6.2	2.44	
3.3uF	C100	2.49	0	2.49	0	
	C307	4.96	0	4.96	0	
	C332	3.76	0	3.76	0	

## 2. ALUMINUM CAPACITOR-2

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		(+)	(-)	Top/Bottom	Top/Bottom	
10uF/16	C103	2.5	0	2.5	0	
	C104	2.5	0	2.5	0	
	C113	3.2	0	3.2	0	
	C114	3.2	0	3.2	0	
	C129	3.2	0	3.2	0	
	C288	1.65	0	1.65	0	
	C295	0.54	4.55	0.54	4.55	
	C312	4.94	0	4.94	0	
	C313	4.03	1.92	4.03	1.92	
	C314	4.03	1.92	4.03	1.92	
	C325	8.09	6.4	8.09	6.4	
	C326	8.09	6.4	8.09	6.4	
	C330	2.62	0	2.62	0	
	C331	5	0	5	0	
	C338	5	0	5	0	
	C341	8	0	8	0	
	C350	2.5	0	2.5	0	
	C355	3.2	0	3.2	0	
	C356	3.2	0	3.2	0	
	C360	3.2	0	3.2	0	
	C361	3.2	0	3.2	0	
	C379	3.28	0	3.28	0	
	C401	2.5	0	2.5	0	

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		(+)	(-)	Top/Bottom	Top/Bottom	
	C423	1.8	0	1.8	0	
	C437	1.8	0	1.8	0	
	C442	1.8	0	1.8	0	
	C444	3.27	0	3.27	0	
	C454	3.28	0	3.28	0	
	C460	1.8	0	1.8	0	
	C493	1.43	0.05	1.43	0.05	
	C542	9.12	0	9.12	0	
	C608	3.3	0	3.3	0	
	C615	3.3	0	3.3	0	
	C616	3.3	0	3.3	0	
	C627	9.13	0	9.13	0	
	C631	5	0	5	0	
	C634	3.21	0	3.21	0	
	C636	3.29	0	3.29	0	
	C639	5.04	0	5.04	0	
	C646	5.61	0	5.61	0	
	C657	4.9	0	4.9	0	
	C706	4.03	1.94	4.03	1.94	
	C707	4.03	1.93	4.03	1.93	
	C711	8.09	1	8.09	1	
	C718	0	0	0	0	External input to Gemster
	C719	1.8	0	1.8	0	
	C720	1.8	0	1.8	0	
	C728	3.65	0	3.65	0	

### 3. ALUMINUM CAPACITOR-3

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		(+)	(-)	Top/Bottom	Top/Bottom	
22uF/16	C123	3.2	0	3.2	0	
	C126	2.5	0	2.5	0	
	C175	3.2	0	3.2	0	
	C178	1.8	0	1.8	0	
	C259	1.8	0	1.8	0	
	C289	3.2	0	3.2	0	
	C290	3.2	0	3.2	0	
	C297	9.12	0	9.12	0	
	C309	9.12	0	9.12	0	

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		(+)	(-)	Top/Bottom	Top/Bottom	
	C317	8.1	0	8.1	0	
	C345	3.2	0	3.2	0	
	C347	4.97	0	4.97	0	
	C362	3.2	0	3.2	0	
	C369	4.96	0	4.96	0	
	C370	5	0	5	0	
	C461	3.28	0	3.28	0	
	C476	2.5	0	2.5	0	
	C478	2.5	0	2.5	0	
	C484	5	0	5	0	
	C480	32.3	0	32.3	0	
	C490	5	0	5	0	
	C495	5	0	5	0	
	C497	5	0	5	0	
	C499	3.32	0	3.32	0	
	C504	1.81	0	1.81	0	
	C535	5	0	5	0	
	C539	9.1	0	9.1	0	
	C556	9.1	0	9.1	0	
	C621	5	0	5	0	
	C623	5.62	0	5.62	0	
	C644	5	0	5	0	
	C708	4.04	0	4.04	0	
	C709	4.04	0	4.04	0	
	C713	4.04	0	4.04	0	
	C714	4.04	0	4.04	0	
	C721	9.1	0	9.1	0	
	C723	9.1	0	9.1	0	
47uF	C544	2.26	3.5	2.26	3.5	
	C545	2.25	3.4	2.25	3.4	
	C546	2.27	3.5	2.27	3.5	
100uF	C339	4.04	0	4.04	0	
	C555	9.11	0	9.11	0	
	C630	5	0	5	0	
	C633	3.21	0	3.21	0	
	C643	32.2	0	32.2	0	
	C648	3.35	0	3.35	0	
	C650	5	0	5	0	
	C710	4.04	0	4.04	0	
220uF	C549	0	1.82	0	1.82	
	C562	4.28	2.19	4.28	2.19	At Video Mode
	C563	4.23	1.9	4.23	1.9	
	C564	4.25	1.3	4.25	1.3	



#### 4. ALUMINUM CAPACITOR-4

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		(+)	(-)	Top/Bottom	Top/Bottom	
470uF	C567	5.0	1.5	5.0	1.5	YPbPr
	C568	5.0	1.37	5.0	1.37	Varies according to
	C569	5.0	1.4	5.0	1.4	Video signal
	C570	5.04	0	5.04	0	RGB
	C571	4.56	0	4.56	0	
	C572	4.6	0	4.6	0	

#### 5. DIODE

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		Anode	Cathode	Anode	Cathode	
SD05	D102	0	-0.7	0	-0.7	
	D103	0	-0.7	0	-0.7	
	D105	0	0	0	0	
	D108	0	0	0	0	
	D109	0	0	0	0	
	D111	0	0.1	0	0.1	
	D112	0	0	0	0	
	D113	0	3.2	0	3.2	
	D115	0	0.15	0	0.15	
	D117	0	3.2	0	3.2	
	D118	0	3.2	0	3.2	
	D121	0	3.2	0	3.2	
	D123	0	3.19	0	3.19	
	D124	0	3.2	0	3.2	
	D125	0	3.2	0	3.2	
	D126	0	3.39	0	3.39	
	D127	0	3.2	0	3.2	
	D128	0	3.2	0	3.2	
	D131	0	0	0	0	
	D132	0	0	0	0	
	D137	0	0	0	0	
	D138	0	3.85	0	3.85	
	D139	0	3.87	0	3.87	
	D141	0	0	0	0	
	D142	0	0	0	0	
	D143	0	0.14	0	0.14	
	D144	0	0.1	0	0.1	

Capacity	Reference Number	DTV Receive		PVR Function		Reference Item
		Anode	Cathode	Anode	Cathode	
	D145	0	0.12	0	0.12	
	D146	0	0.1	0	0.1	
	D147	0	0.12	0	0.12	
	D148	0	0.12	0	0.12	
LED	LED100	1.94	0	1.94	0	Green
	LED101	3.28	4.9	1.7	0~3.3	Red
	LED102	3.3	3.3	3.3	3.3	At receiving AT
		3.3	1.7	3.3	1.7	At receiving NT
	LED105	1.6	0	1.6	0	

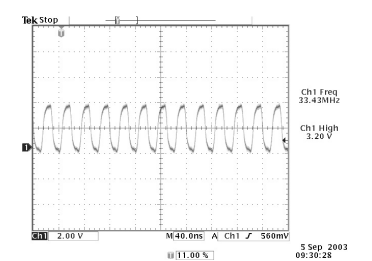
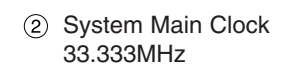
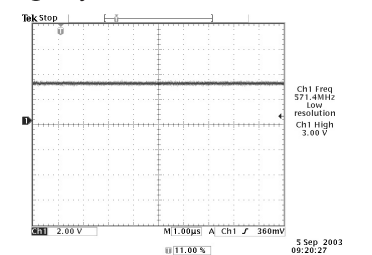
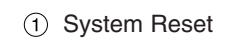
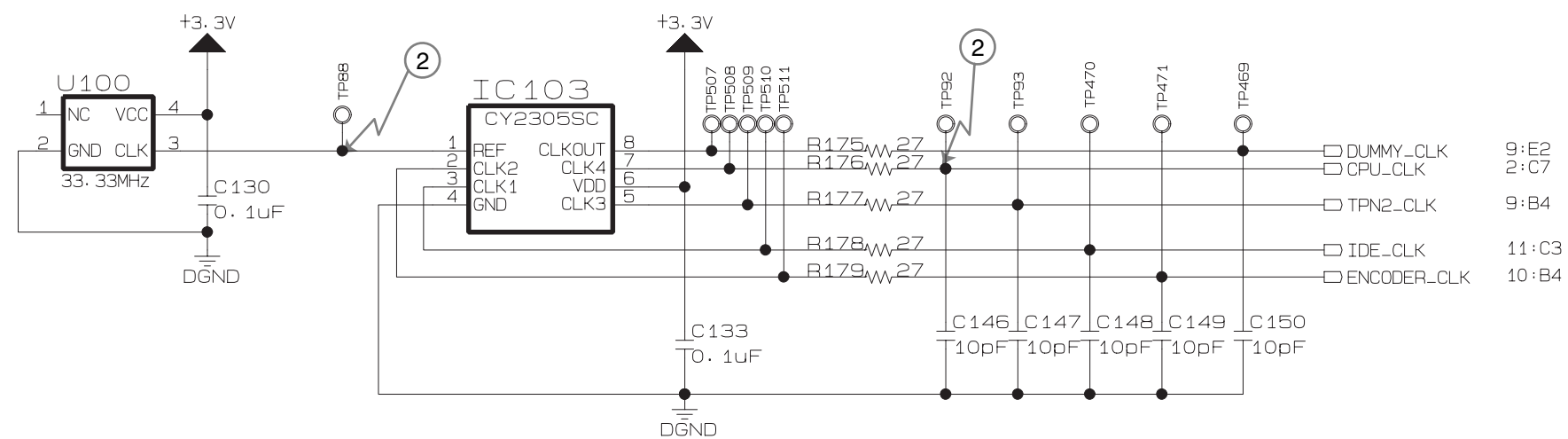
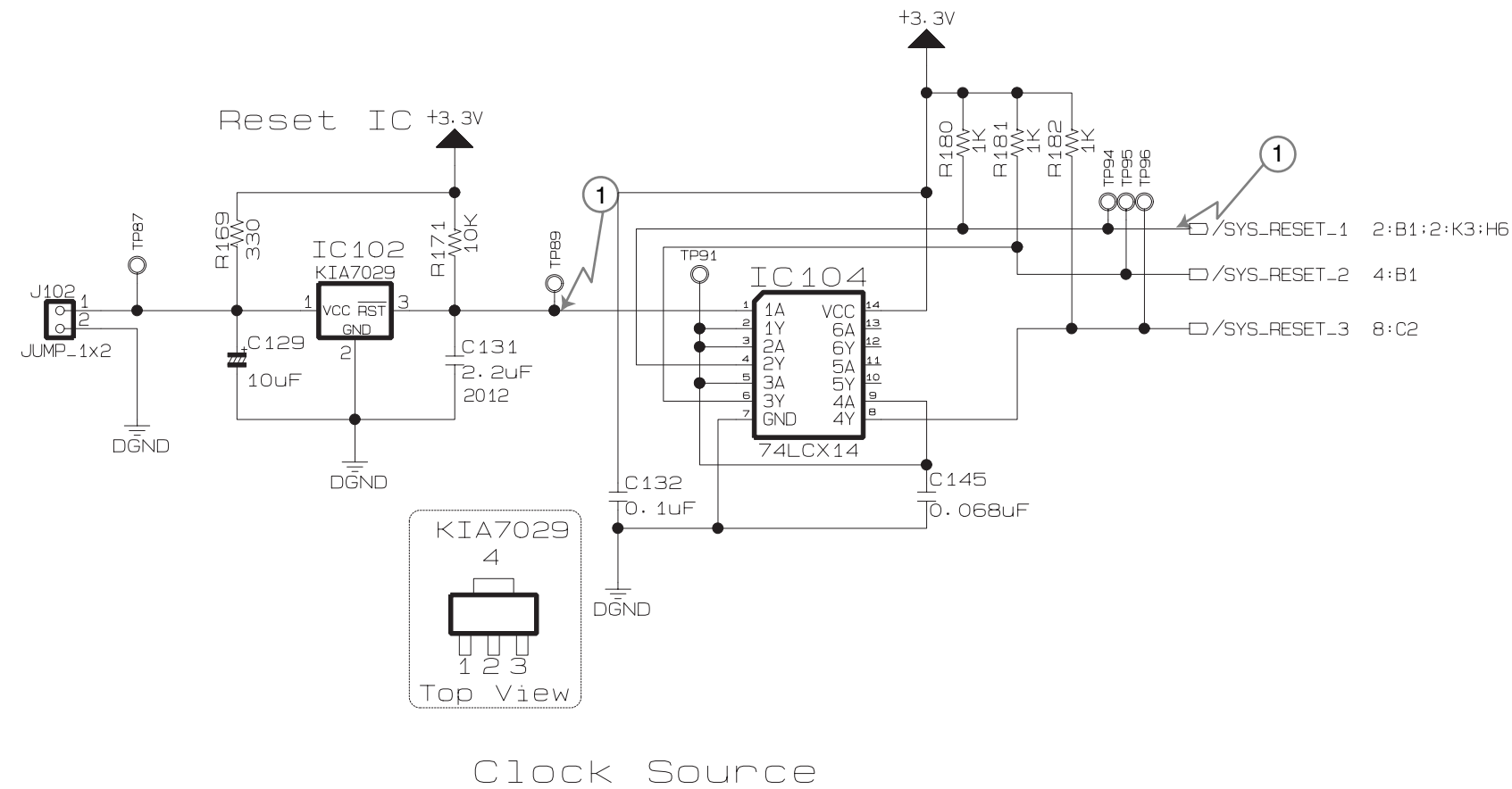
Part Name	Reference Number	Circuit No.			PVR			Reference Item
		1	2	3	1	2	3	
SLUV2.8	D104	0	~	1.4	0	~	1.4	Video signal
	D106	0	-0.22	0	0	-0.22	0	
	D107	0	-0.04	0	0	-0.04	0	
	D110	0	0	1.7	0	0	1.7	
	D114	0	~	0.56	0	~	0.56	
	D116	0	~	1.5	0	~	1.5	
	D119	0	~	0.46	0	~	0.46	
	D120	0	~	1.4	0	~	1.4	
	D122	0	0.23	0.35	0	0.23	0.35	
	D134	0	0	0	0	0	0	
	D135	0	0	0	0	0	0	
	D140	0	~	3.2	0	~	3.2	

# MEMO

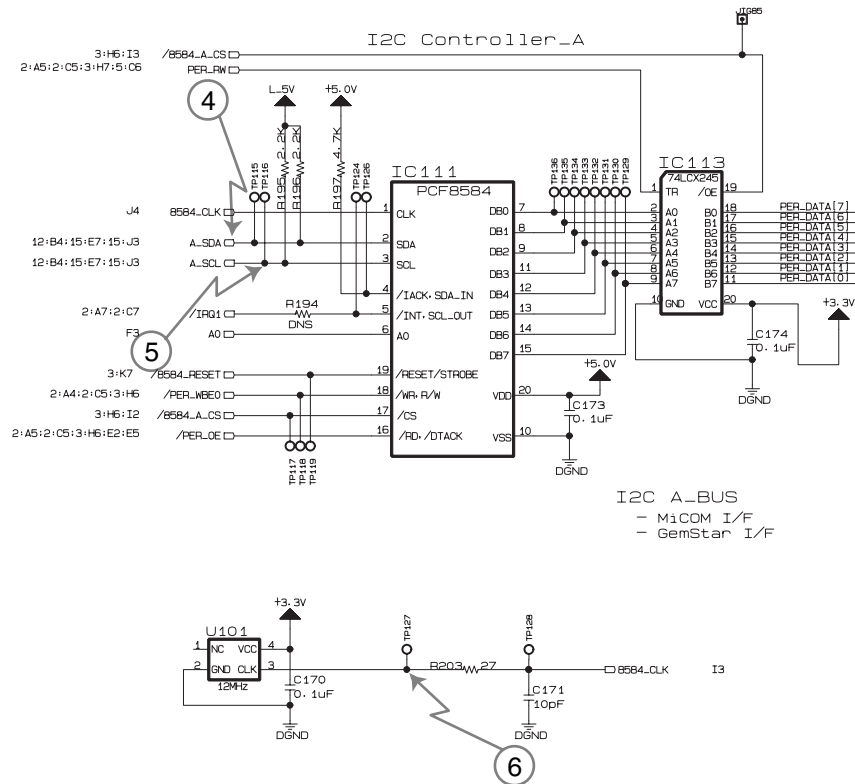
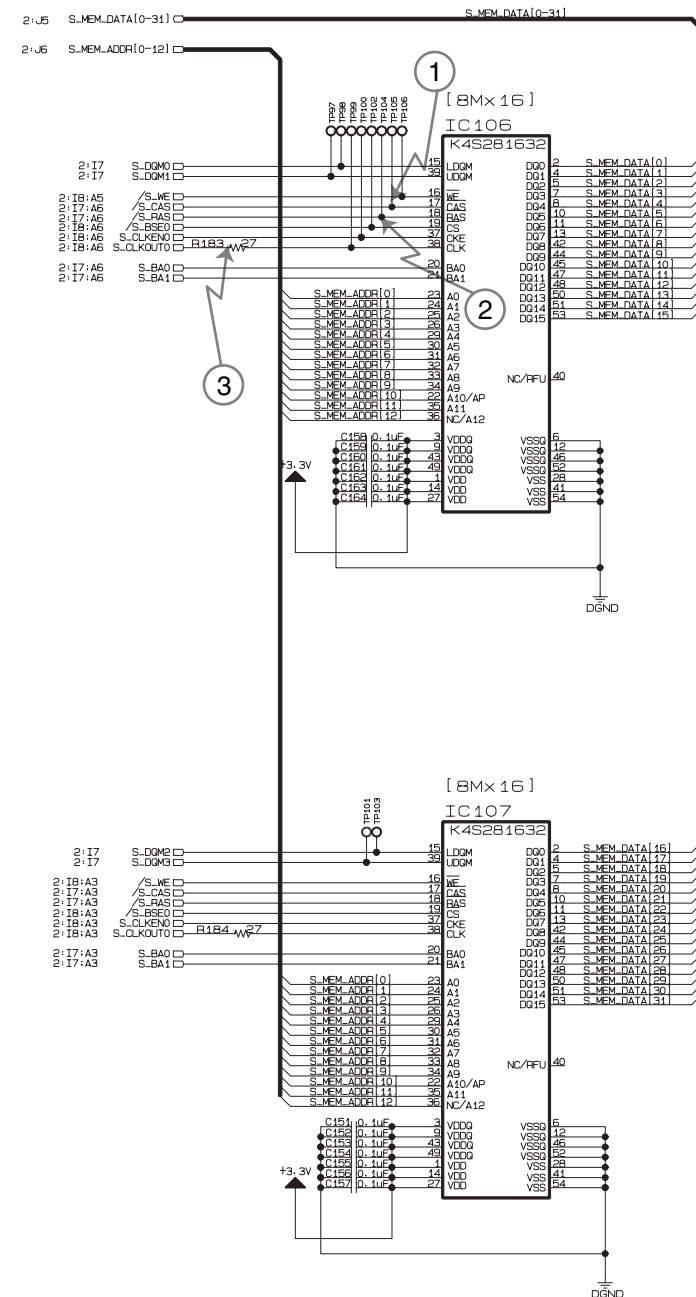
Handwriting practice lines consisting of 20 horizontal dotted lines.

## WAVEFORMS

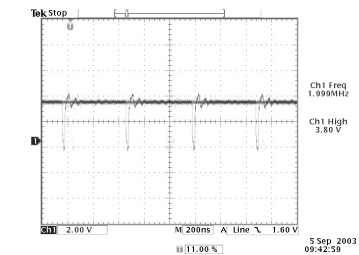
## 1. SYSTEM PART-1



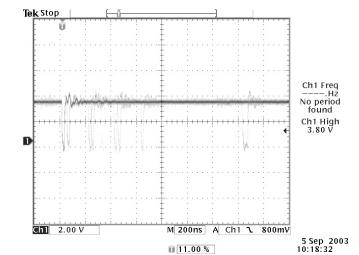
## 2. DIGITAL SYSTEM [SYSTEM MEMORY] SECTION



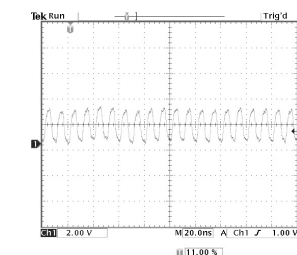
① System Memory  
CAS Signal



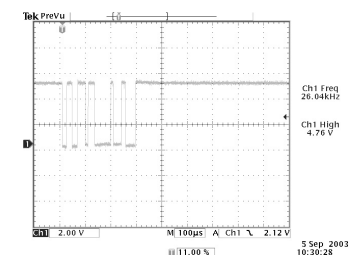
② System Memory  
RAS Signal



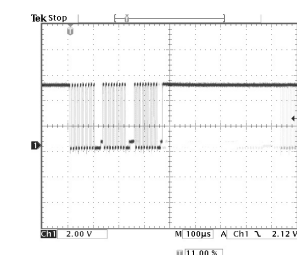
③ System Memory Clock Signal



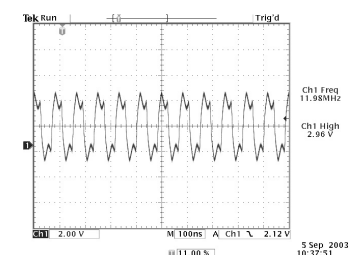
#### ④ I<sup>2</sup>C Bus\_A SDA Signal



⑤ I<sup>2</sup>C Bus\_A SCL Signal



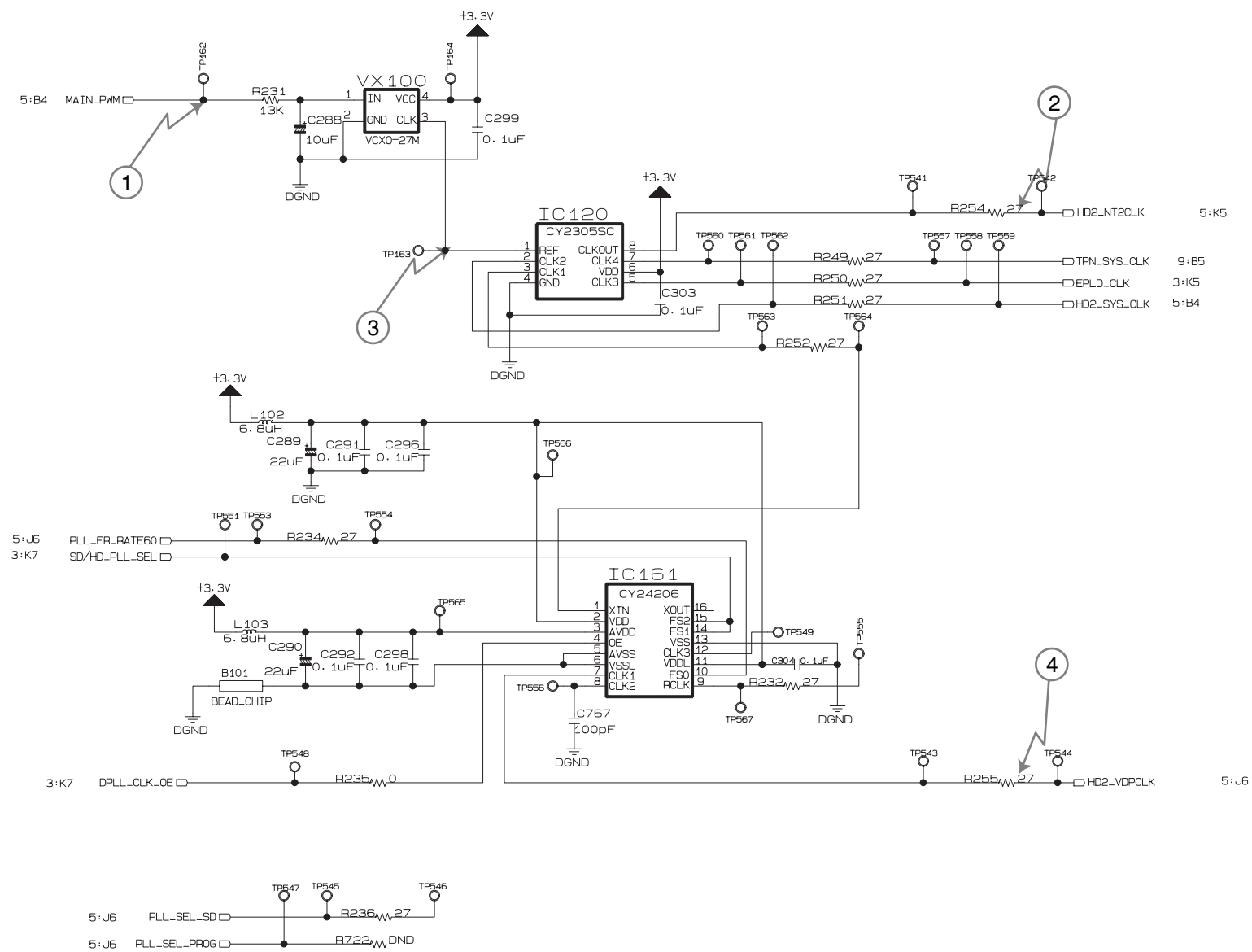
⑥ I<sup>2</sup>C Bus\_A Controller Clock



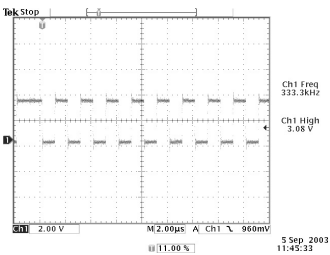


4. VIDEO PART-2

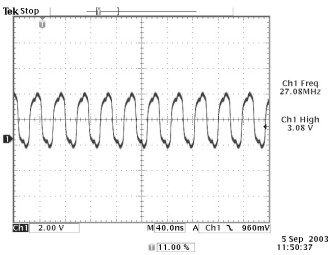
HD-2 PLL Circuit



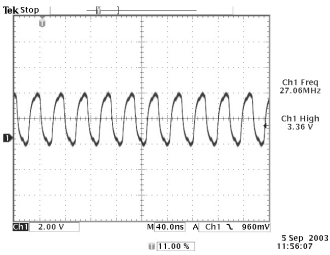
① HD-2 PWM Signal



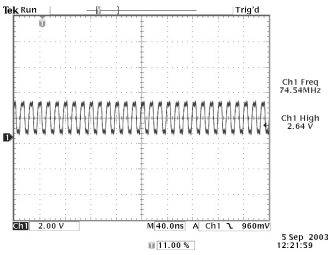
② HD-2 NTSC Clock



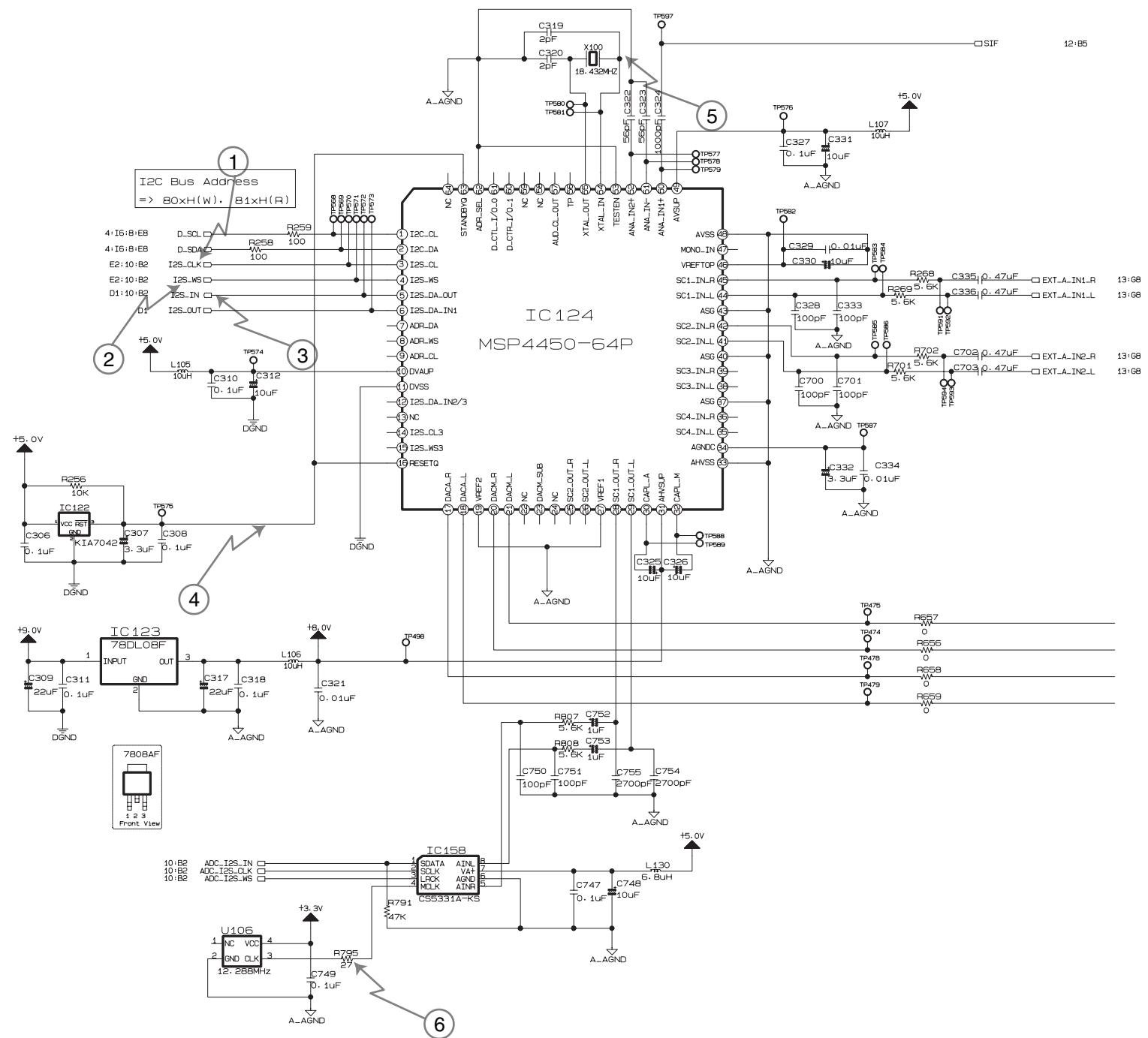
③ 27MHz VCXO Clock



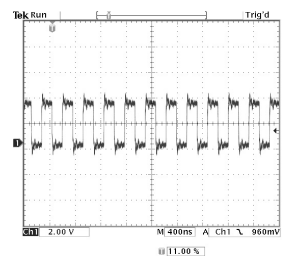
④ HD-2 VDP Clock



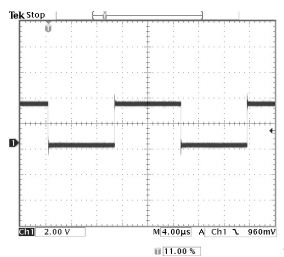
5. AUDIO PART-1



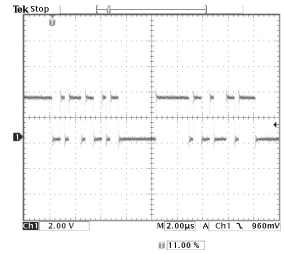
① I<sup>2</sup>S Clock



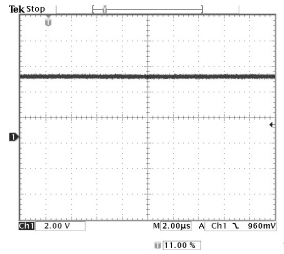
② I2S L/R Clock



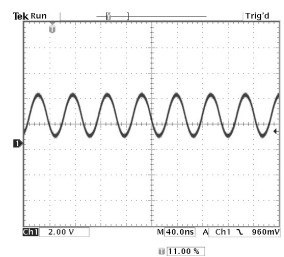
③ I2S Data Out From MSP4450



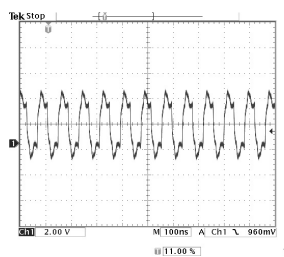
④ MSP4450 Reset



⑤ MSP4450 Clock

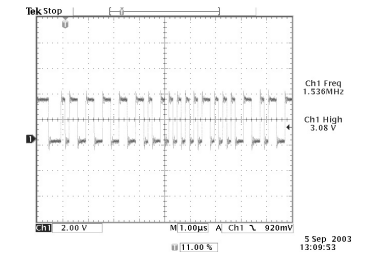
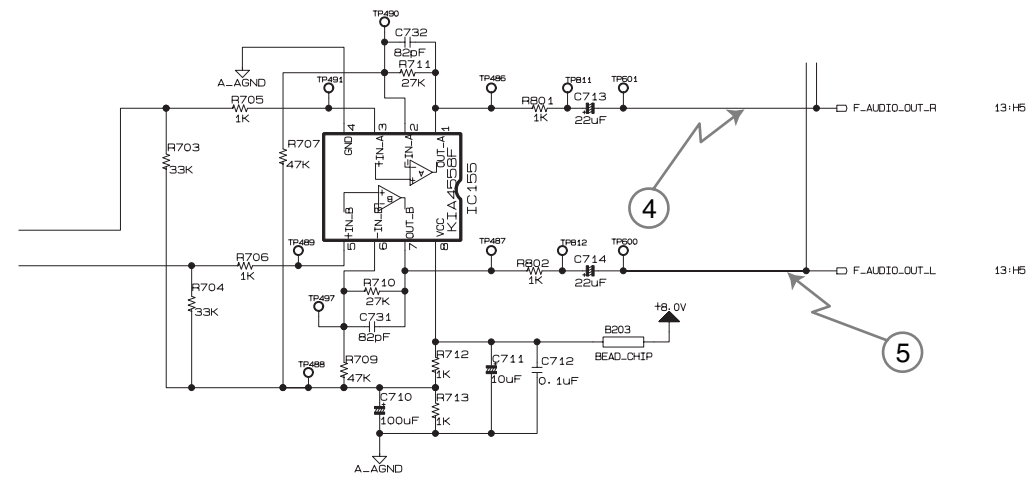
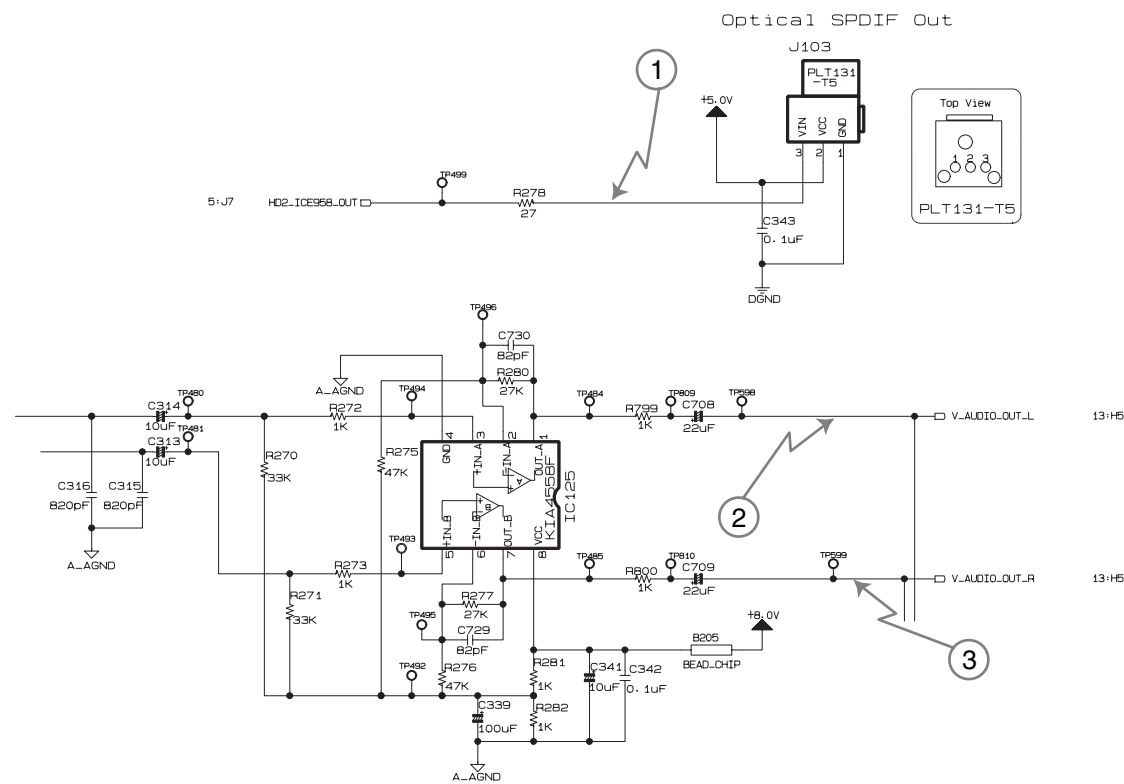


⑥ Audio ADC Clock

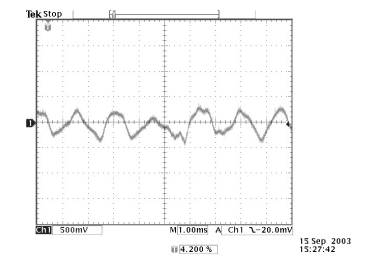




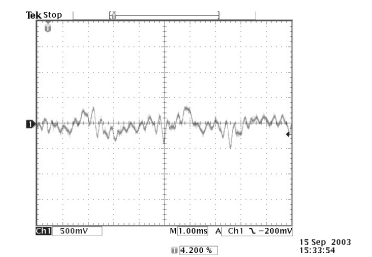
## 6. AUDIO PART-2



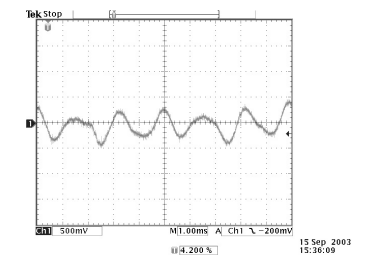
② Variable Audio\_L Out



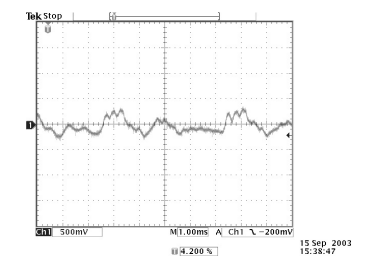
③ Variable Audio\_R Out



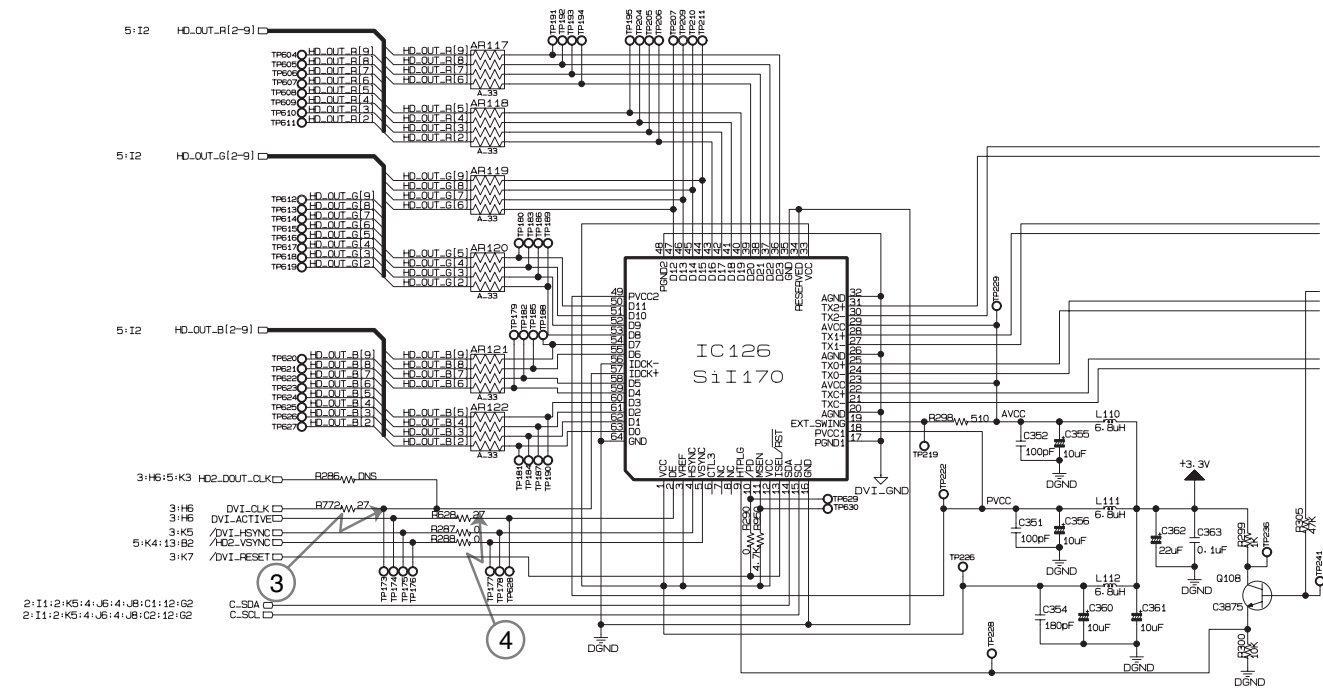
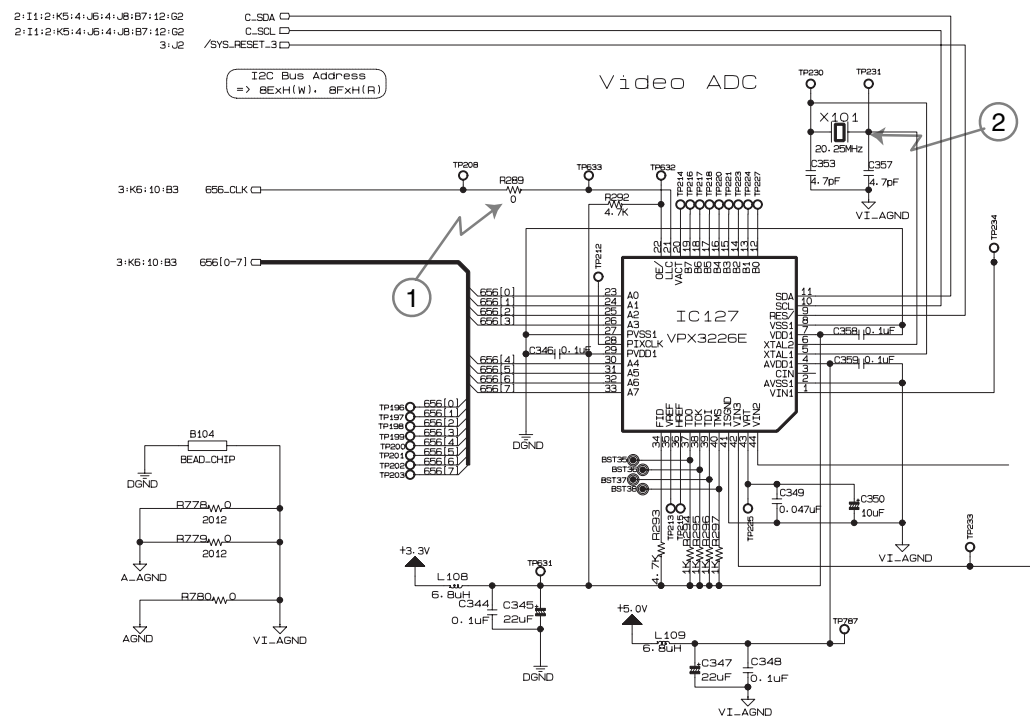
④ Fixed Audio\_L Out



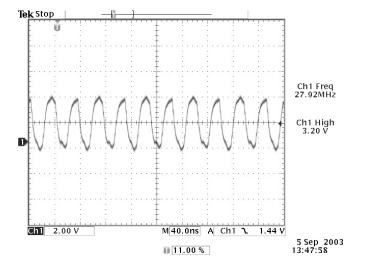
⑤ Fixed Audio\_R Out



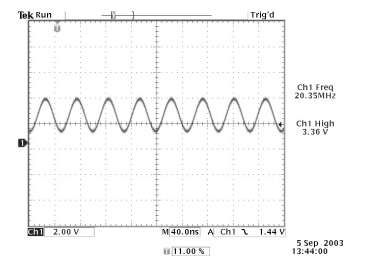
## 7. VIDEO IN & DVI OUT



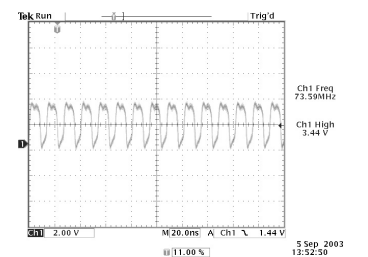
① 656 Clock



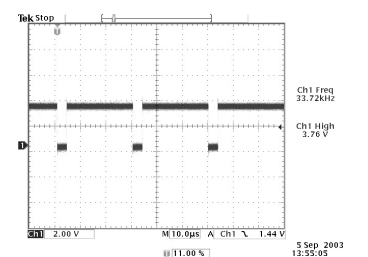
② VPX3226F X-Tal Clock



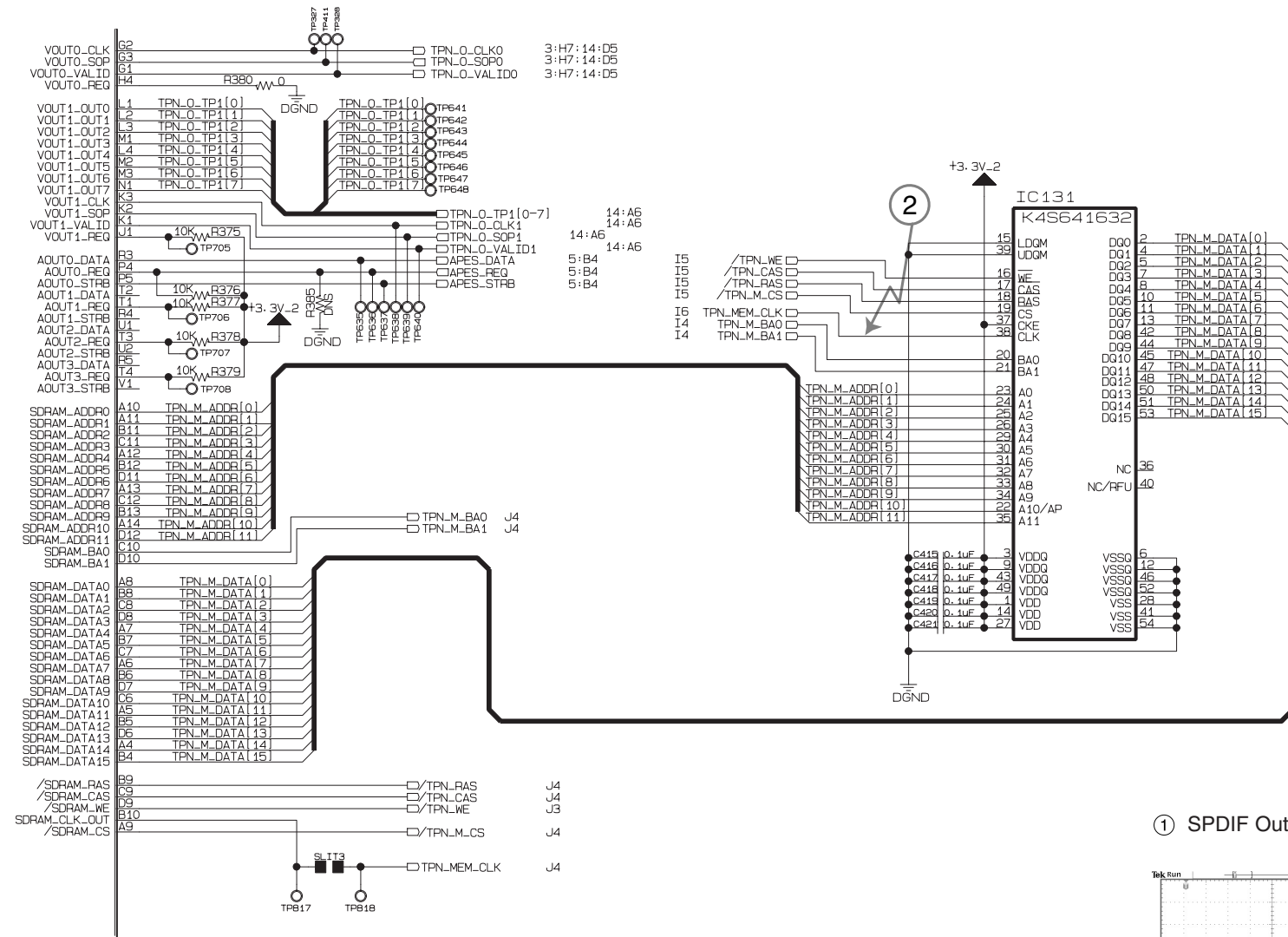
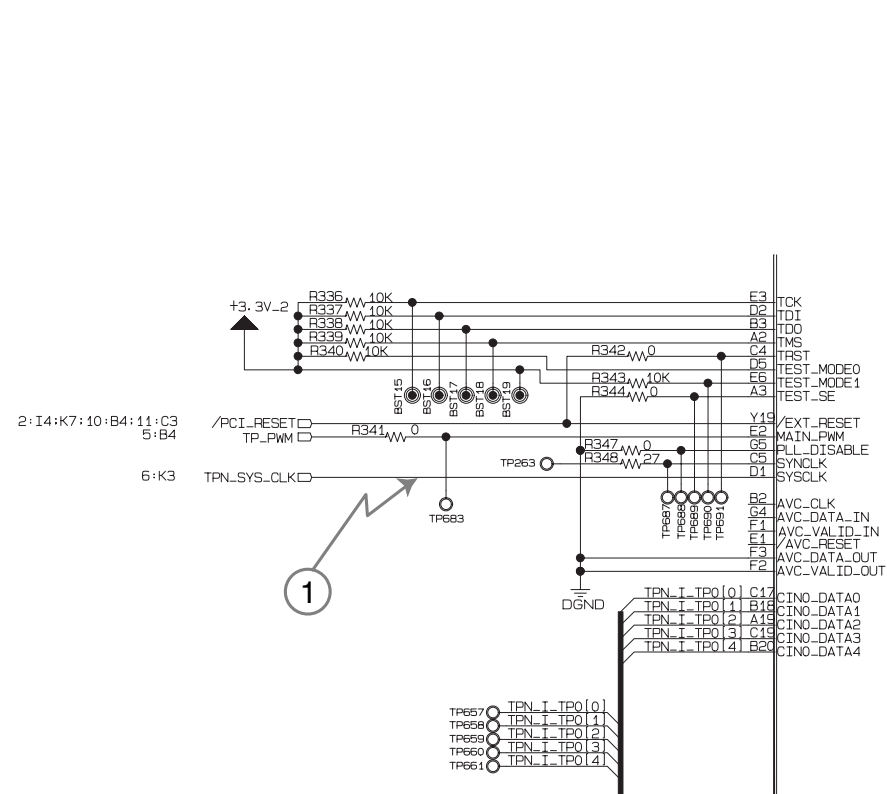
③ DVI Clock



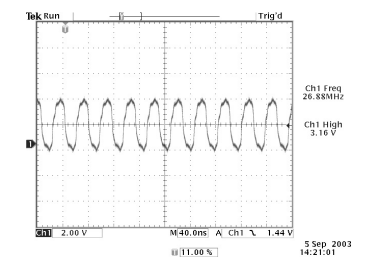
④ Digital Video H-Sync Out



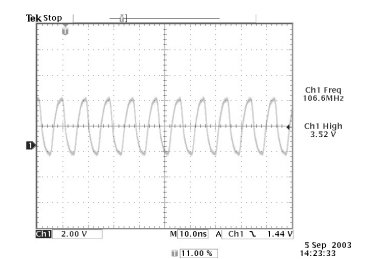
## 8. PVR PART-1



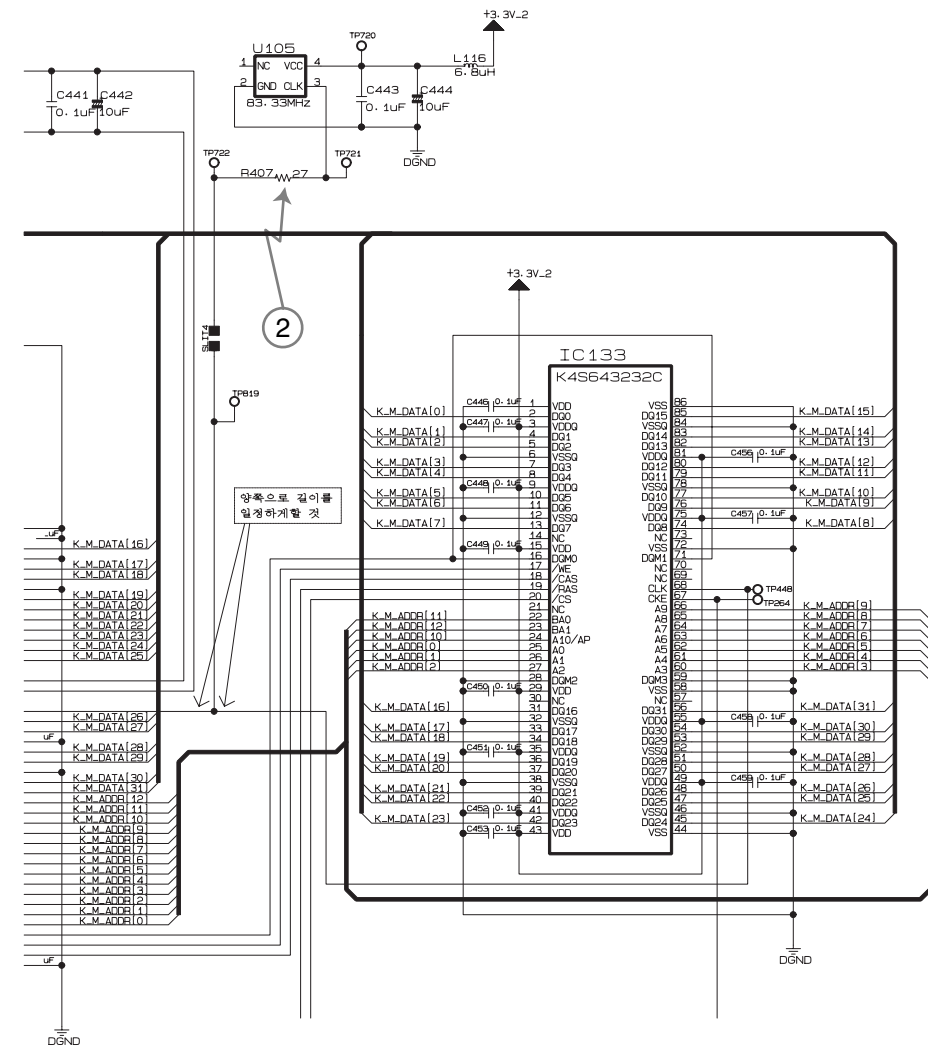
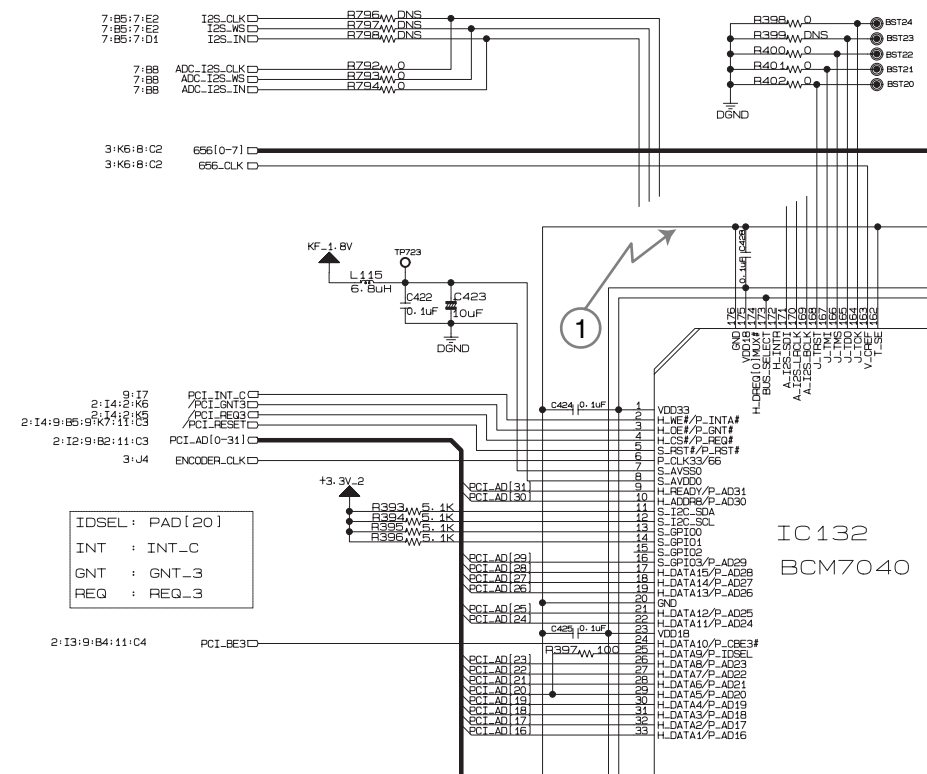
① SPDIF Out Signal



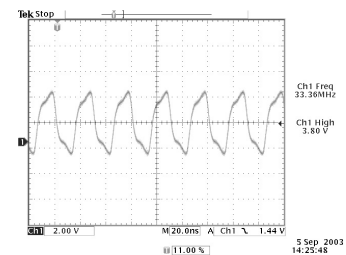
② Variable Audio\_L Out



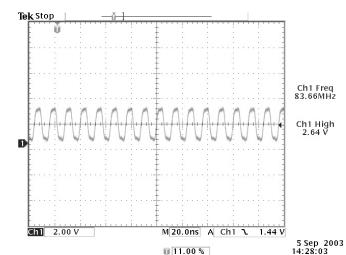
9. PVR PART-2



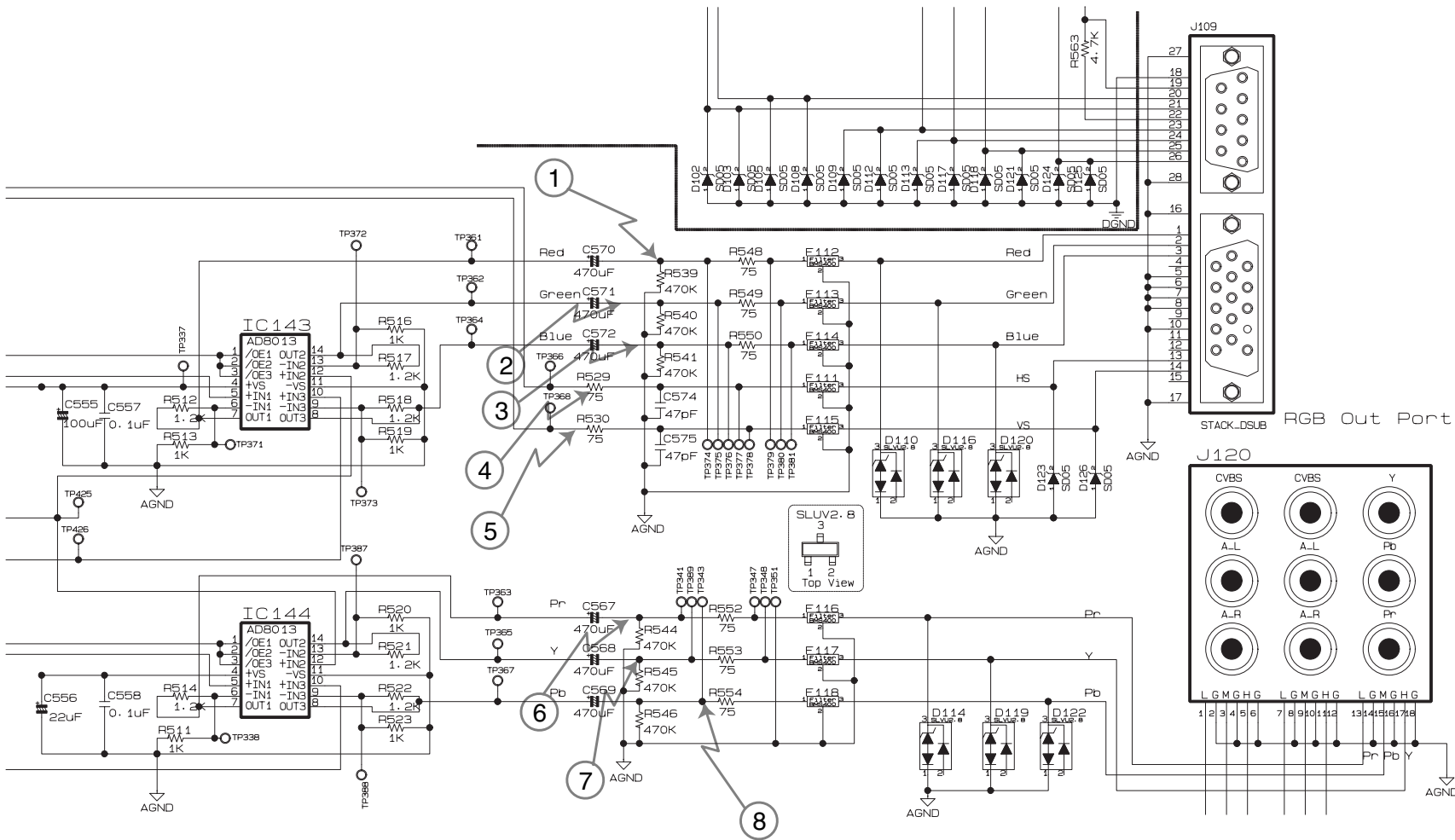
① BCM7040 Clock



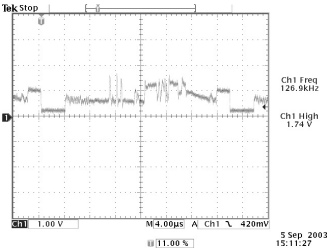
② BCM7040 Memory Clock



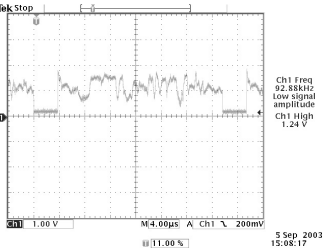
10. YPbPr, RGB OUT



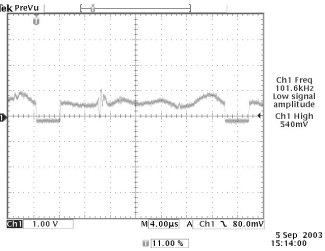
① RGB Red Out



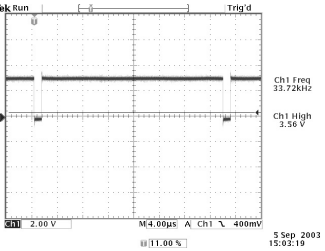
② RGB Green Out



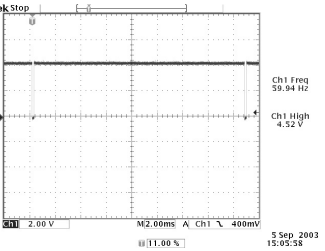
③ RGB Blue Out



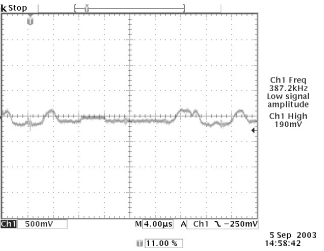
④ RGB H-Sync Out



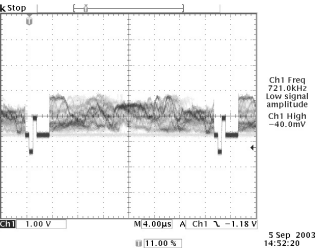
⑤ RGB V-Sync Out



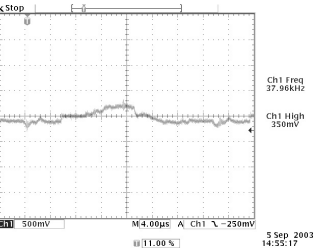
⑦ YPbPr Pr Out



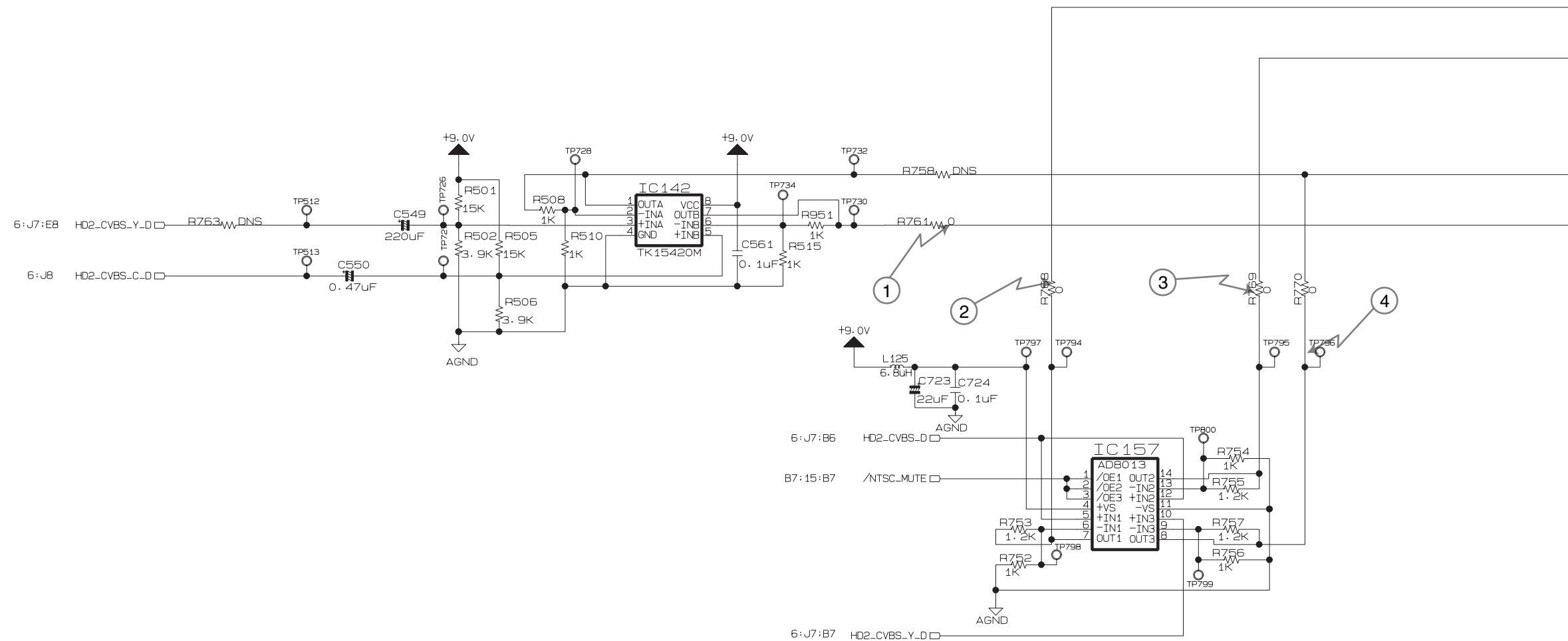
⑧ YPbPr Y Out



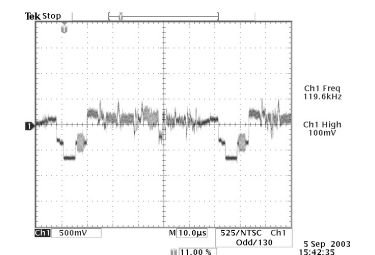
⑨ YPbPr Pb Out



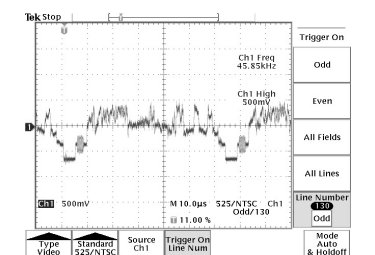
## 11. CVBS OUT



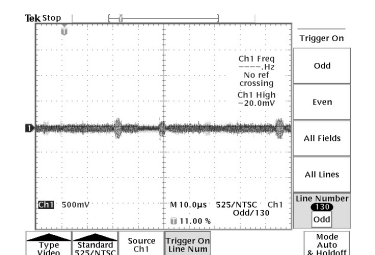
① 656 Clock



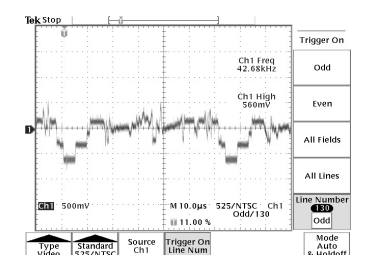
② VPX3226F X-Tal Clock



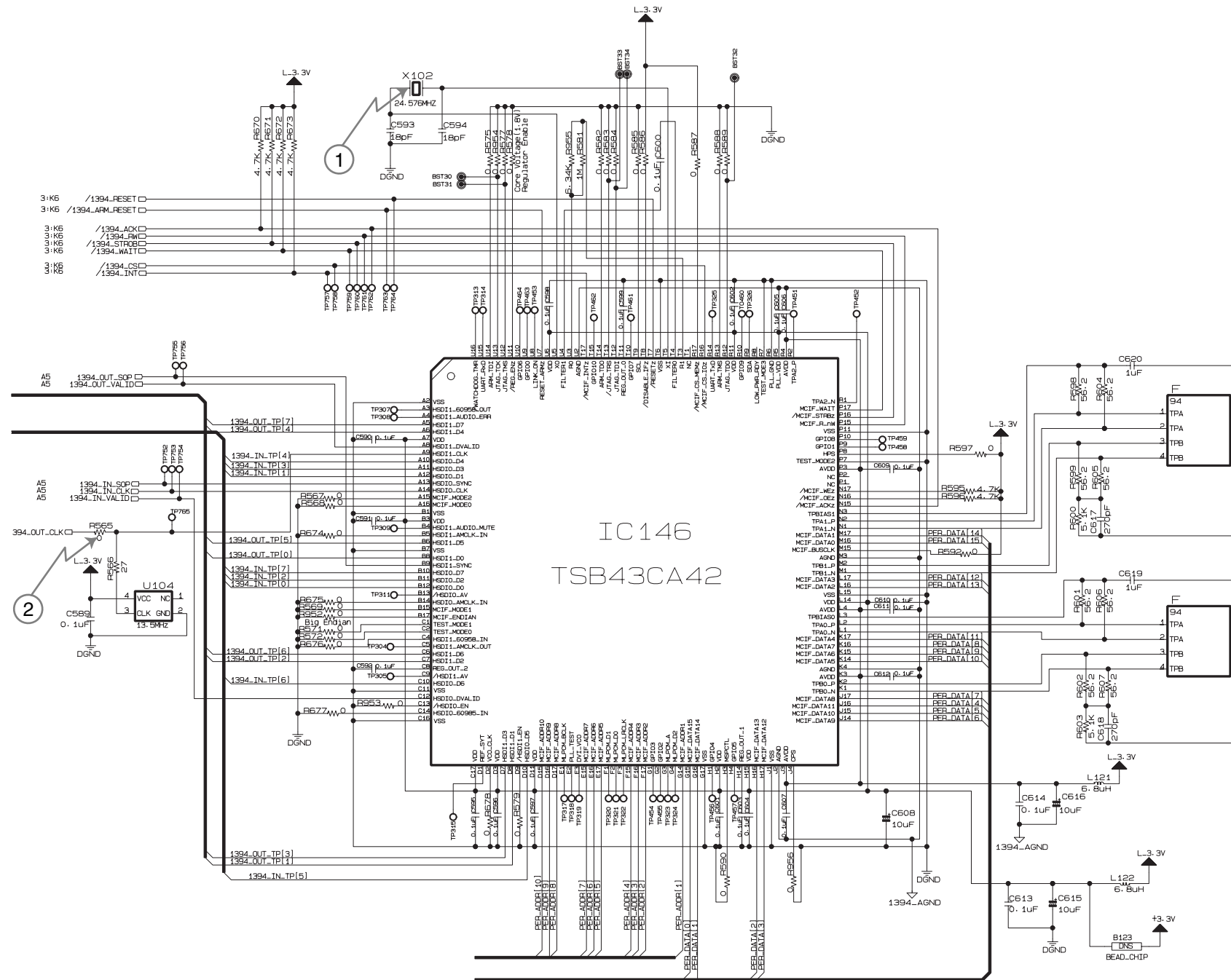
③ DVI Clock



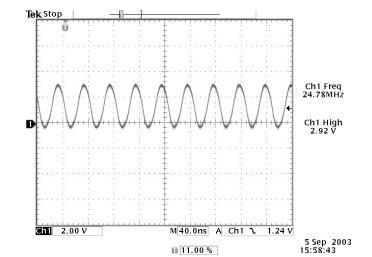
④ Digital Video H-Sync Out



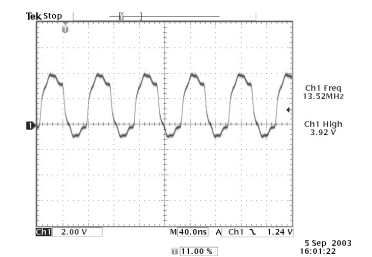
## 12. 1394 PART



① 1394 X-Tal Clock

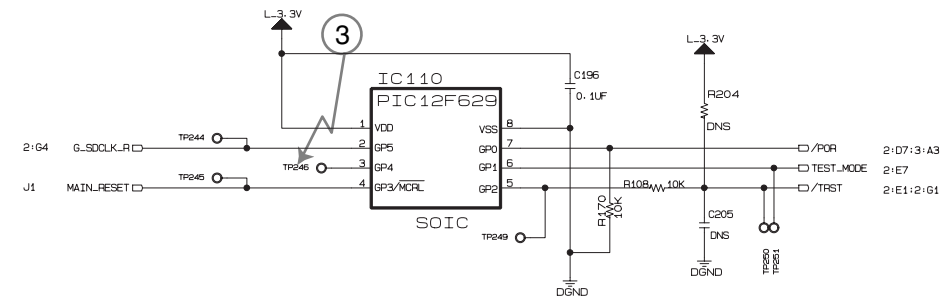
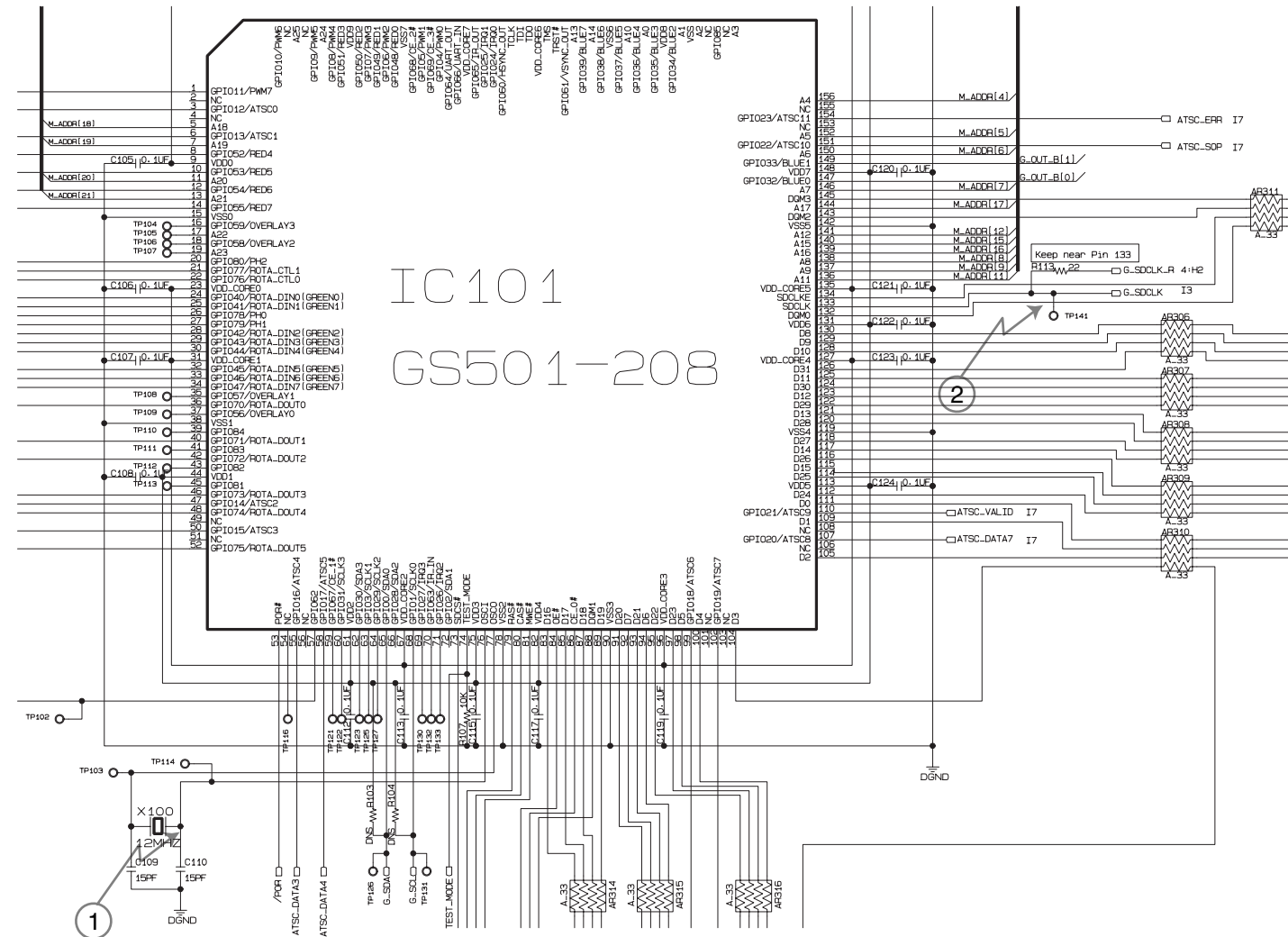


② 1394 TP Out Clock

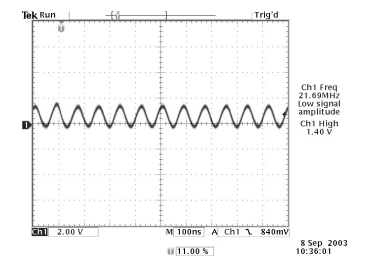




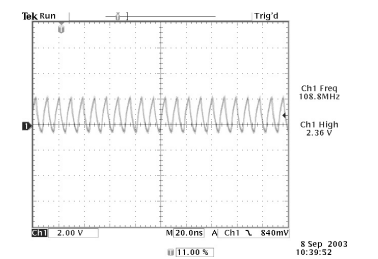
## 13. GEMSTAR PART



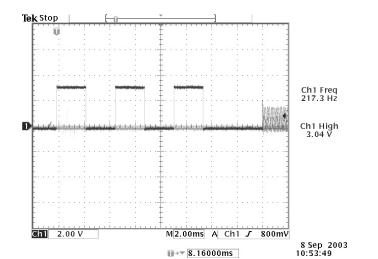
① Gemstar X-Tal Clock



② Gemstar Memory Clock



### ③ Gemstar Memory Clock to MiCOM





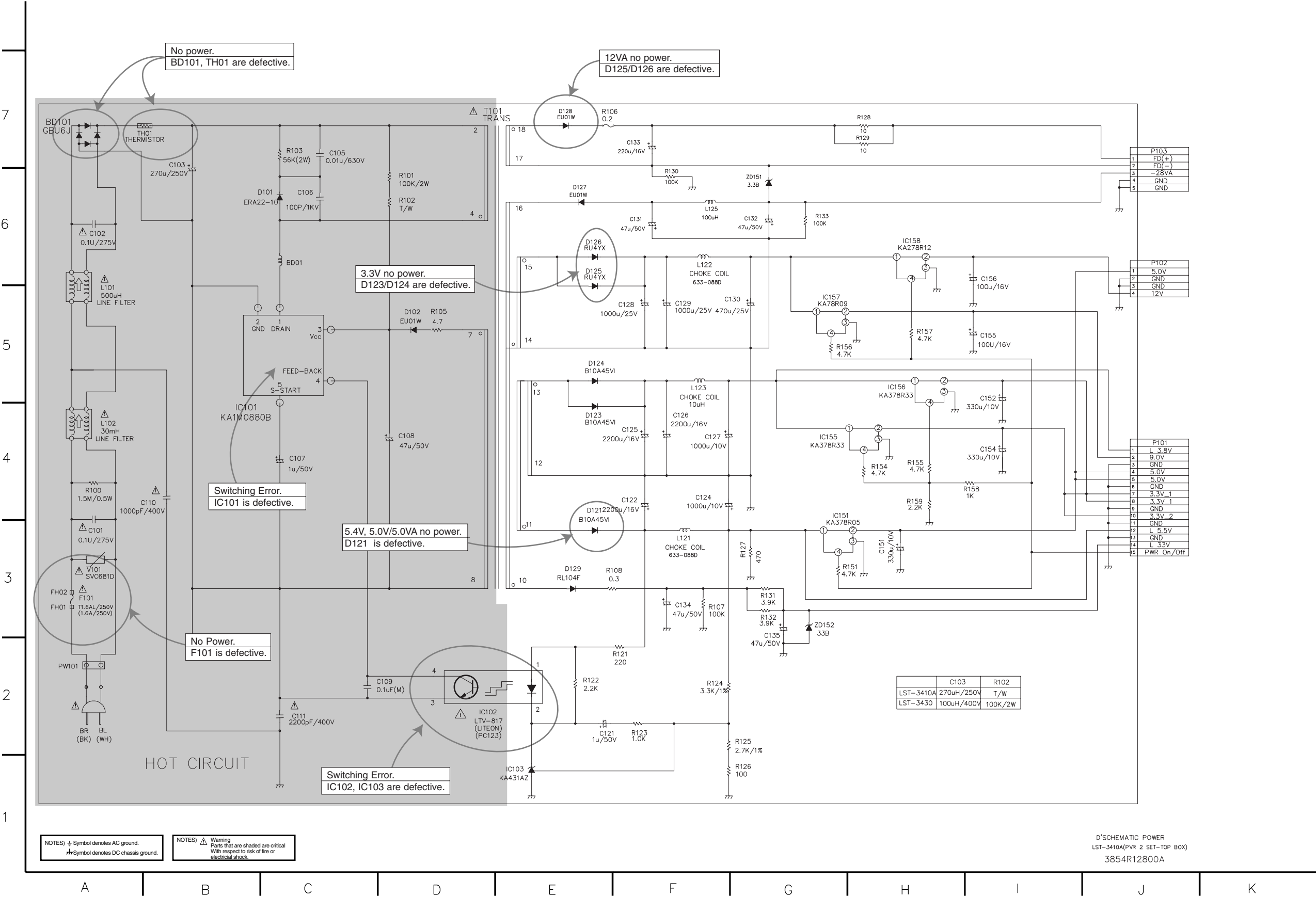
MEMO

Lined area for writing on the left page.

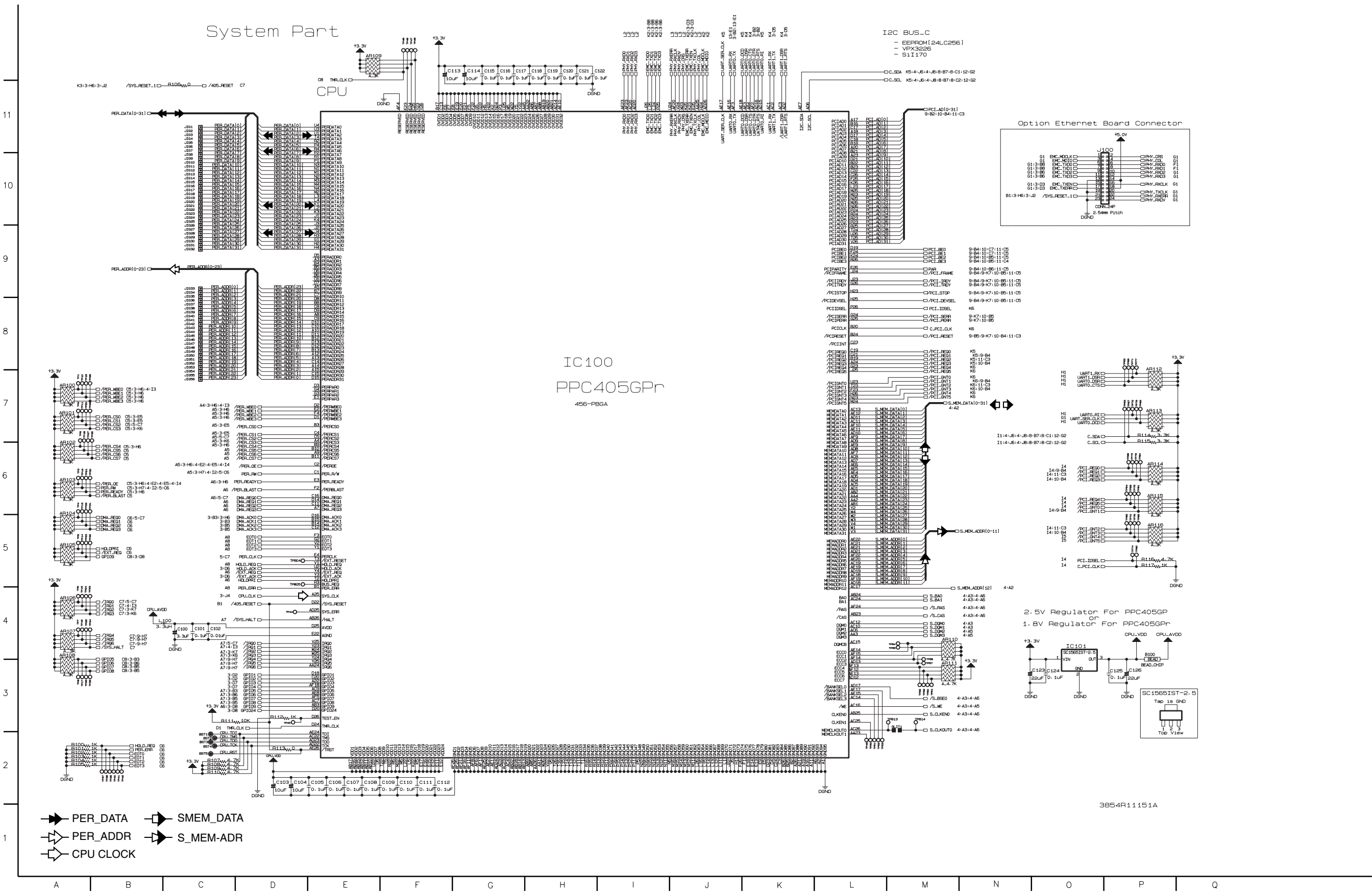
MEMO

Lined area for writing on the right page.

CIRCUIT DIAGRAMS  
1. POWER CIRCUIT DIAGRAM

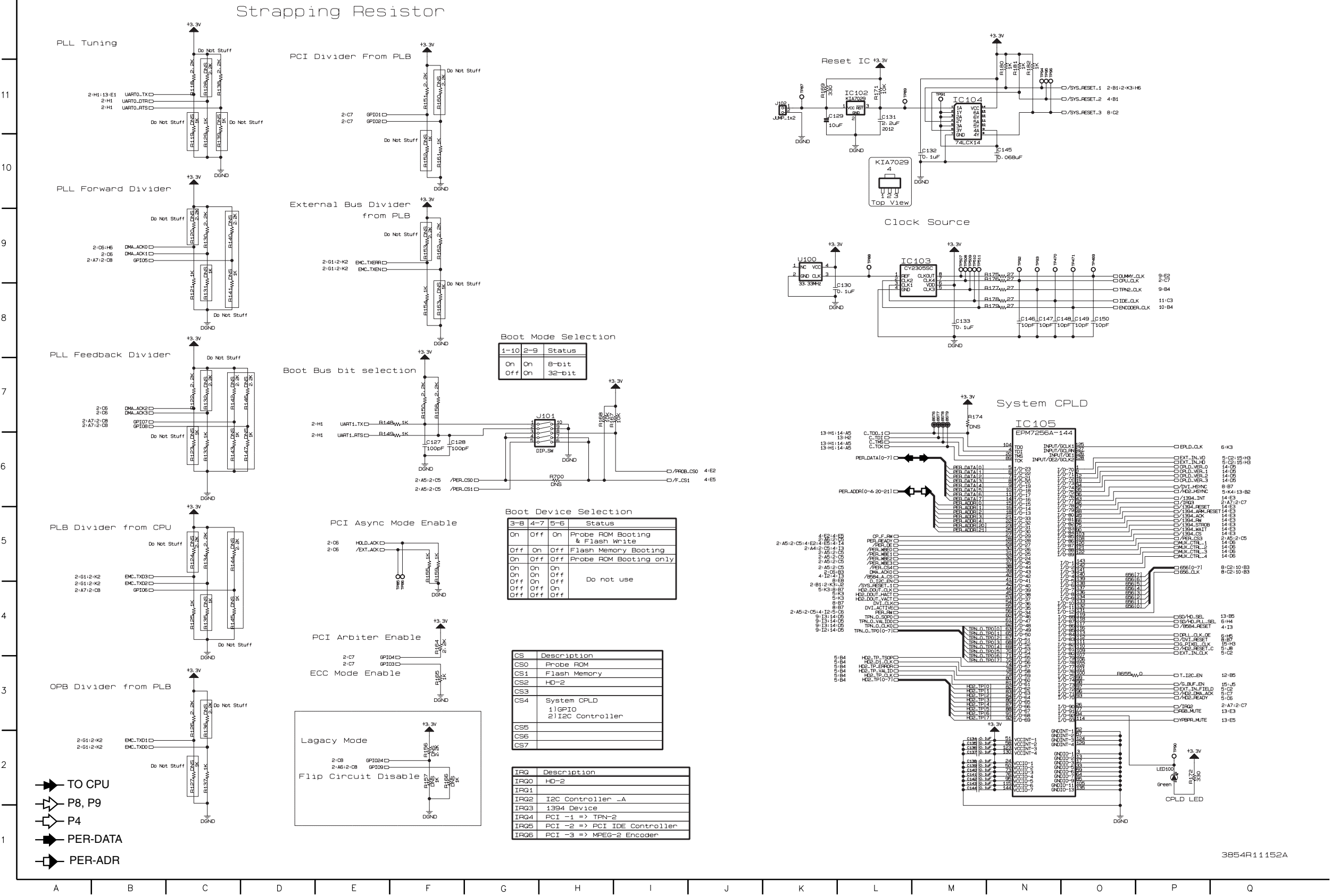


2. CPU CIRCUIT DIAGRAM 1



3. BOOT STRAPPING, CLOCK, CPLD CIRCUIT DIAGRAM

System Part

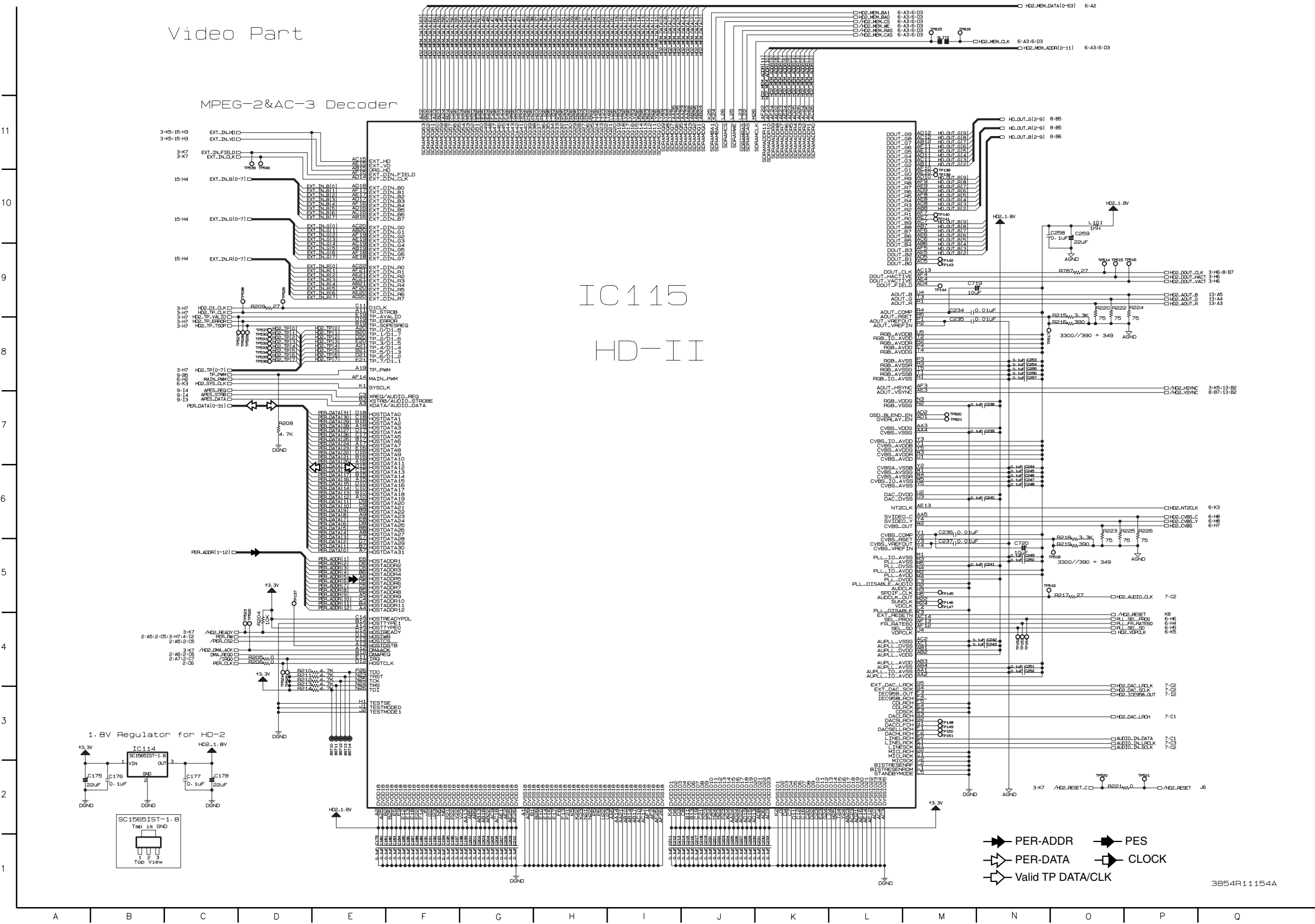


The schematic diagram, titled "System Part", illustrates the internal components and their interconnections. It includes:

- System Memory [32MB]:** Consists of four 8Mx16 IC106 and IC107 memory chips, each with a K4S281632 core. They are connected to S\_MEM\_DATA and S\_MEM\_ADDR buses.
- Flash Memory [8MB]:** Includes two 2Mx16 IC109 and IC110 memory chips, each with an AM29DL323 core. They are connected to PER\_DATA and PER\_ADDR buses.
- Probe ROM:** An IC108 (AM29LV040) connected to the PER\_DATA and PER\_ADDR buses.
- I2C Controller:** IC111 (PCF8584) and IC113 (ALC208) are connected to the I2C A-BUS and I2C D-BUS.
- EEPROM:** IC112 (24LC256) is connected to the I2C D-BUS.
- D-BUS:** Includes a D-BUS controller (IC100) and a D-BUS output (IC101).
- Other Components:** Various resistors (R185, R186, R187, R188, R189, R190, R191, R192, R193, R194, R195, R196, R197, R198, R199, R200, R201, R202, R203, R204, R205, R206, R207, R208, R209, R210, R211, R212, R213, R214, R215, R216, R217, R218, R219, R220, R221, R222, R223, R224, R225, R226, R227, R228, R229, R230, R231, R232, R233, R234, R235, R236, R237, R238, R239, R240, R241, R242, R243, R244, R245, R246, R247, R248, R249, R250, R251, R252, R253, R254, R255, R256, R257, R258, R259, R260, R261, R262, R263, R264, R265, R266, R267, R268, R269, R270, R271, R272, R273, R274, R275, R276, R277, R278, R279, R280, R281, R282, R283, R284, R285, R286, R287, R288, R289, R290, R291, R292, R293, R294, R295, R296, R297, R298, R299, R300, R301, R302, R303, R304, R305, R306, R307, R308, R309, R310, R311, R312, R313, R314, R315, R316, R317, R318, R319, R320, R321, R322, R323, R324, R325, R326, R327, R328, R329, R330, R331, R332, R333, R334, R335, R336, R337, R338, R339, R340, R341, R342, R343, R344, R345, R346, R347, R348, R349, R350, R351, R352, R353, R354, R355, R356, R357, R358, R359, R360, R361, R362, R363, R364, R365, R366, R367, R368, R369, R370, R371, R372, R373, R374, R375, R376, R377, R378, R379, R380, R381, R382, R383, R384, R385, R386, R387, R388, R389, R390, R391, R392, R393, R394, R395, R396, R397, R398, R399, R400, R401, R402, R403, R404, R405, R406, R407, R408, R409, R410, R411, R412, R413, R414, R415, R416, R417, R418, R419, R420, R421, R422, R423, R424, R425, R426, R427, R428, R429, R430, R431, R432, R433, R434, R435, R436, R437, R438, R439, R440, R441, R442, R443, R444, R445, R446, R447, R448, R449, R450, R451, R452, R453, R454, R455, R456, R457, R458, R459, R460, R461, R462, R463, R464, R465, R466, R467, R468, R469, R470, R471, R472, R473, R474, R475, R476, R477, R478, R479, R480, R481, R482, R483, R484, R485, R486, R487, R488, R489, R490, R491, R492, R493, R494, R495, R496, R497, R498, R499, R500, R501, R502, R503, R504, R505, R506, R507, R508, R509, R510, R511, R512, R513, R514, R515, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R527, R528, R529, R530, R531, R532, R533, R534, R535, R536, R537, R538, R539, R540, R541, R542, R543, R544, R545, R546, R547, R548, R549, R550, R551, R552, R553, R554, R555, R556, R557, R558, R559, R560, R561, R562, R563, R564, R565, R566, R567, R568, R569, R570, R571, R572, R573, R574, R575, R576, R577, R578, R579, R580, R581, R582, R583, R584, R585, R586, R587, R588, R589, R590, R591, R592, R593, R594, R595, R596, R597, R598, R599, R600, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R611, R612, R613, R614, R615, R616, R617, R618, R619, R620, R621, R622, R623, R624, R625, R626, R627, R628, R629, R630, R631, R632, R633, R634, R635, R636, R637, R638, R639, R640, R641, R642, R643, R644, R645, R646, R647, R648, R649, R650, R651, R652, R653, R654, R655, R656, R657, R658, R659, R660, R661, R662, R663, R664, R665, R666, R667, R668, R669, R670, R671, R672, R673, R674, R675, R676, R677, R678, R679, R680, R681, R682, R683, R684, R685, R686, R687, R688, R689, R690, R691, R692, R693, R694, R695, R696, R697, R698, R699, R700, R701, R702, R703, R704, R705, R706, R707, R708, R709, R710, R711, R712, R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R739, R740, R741, R742, R743, R744, R745, R746, R747, R748, R749, R750, R751, R752, R753, R754, R755, R756, R757, R758, R759, R760, R761, R762, R763, R764, R765, R766, R767, R768, R769, R770, R771, R772, R773, R774, R775, R776, R777, R778, R779, R780, R781, R782, R783, R784, R785, R786, R787, R788, R789, R790, R791, R792, R793, R794, R795, R796, R797, R798, R799, R800, R801, R802, R803, R804, R805, R806, R807, R808, R809, R810, R811, R812, R813, R814, R815, R816, R817, R818, R819, R820, R821, R822, R823, R824, R825, R826, R827, R828, R829, R830, R831, R832, R833, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R844, R845, R846, R847, R848, R849, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R864, R865, R866, R867, R868, R869, R870, R871, R872, R873, R874, R875, R876, R877, R878, R879, R880, R881, R882, R883, R884, R885, R886, R887, R888, R889, R890, R891, R892, R893, R894, R895, R896, R897, R898, R899, R900, R901, R902, R903, R904, R905, R906, R907, R908, R909, R910, R911, R912, R913, R914, R915, R916, R917, R918, R919, R920, R921, R922, R923, R924, R925, R926, R927, R928, R929, R93



5. HD-II CIRCUIT DIAGRAM

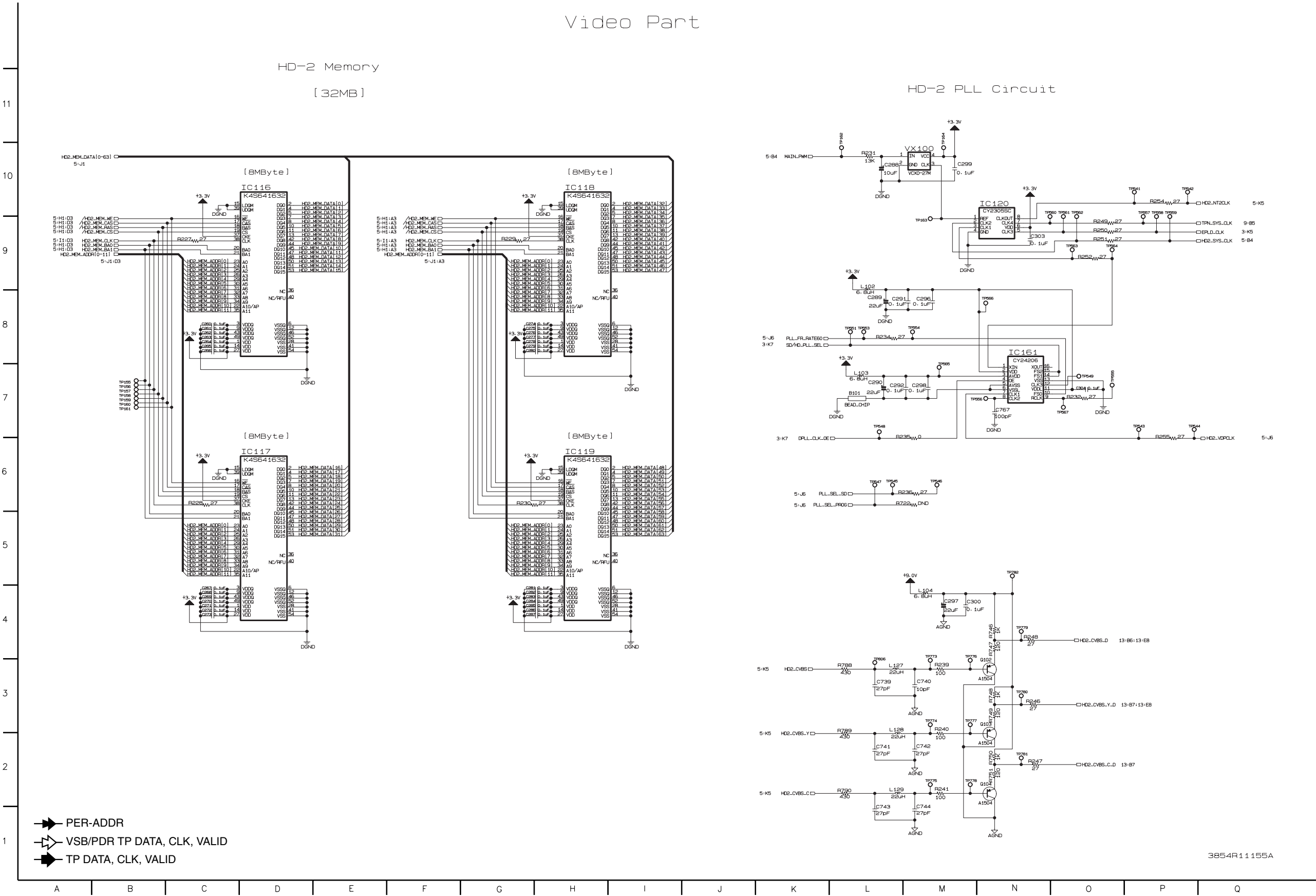


6. HD2 MEMORY PLL CIRCUIT DIAGRAM 2

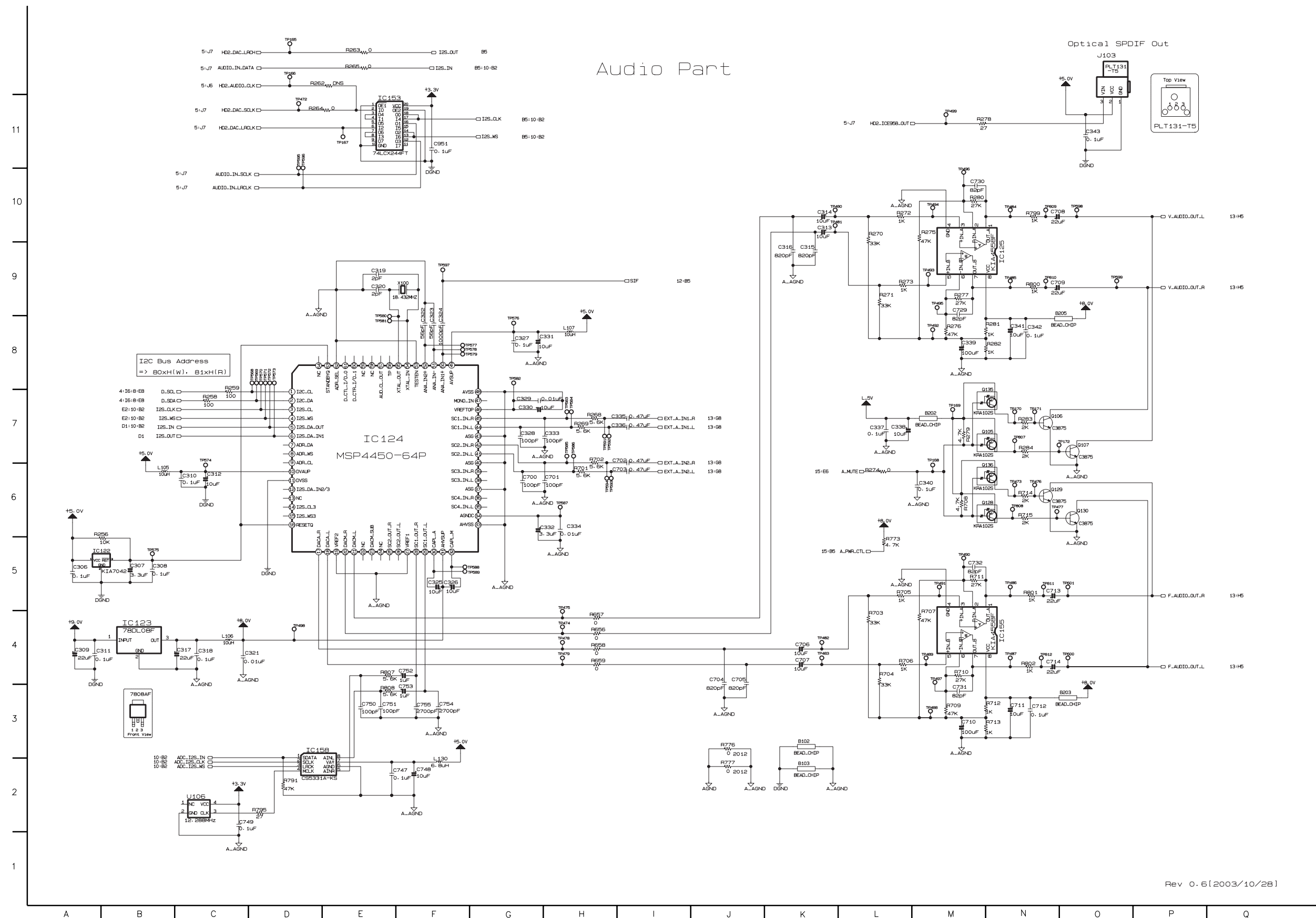
Video Part

HD-2 Memory  
[ 32MB ]

HD-2 PLL Circuit

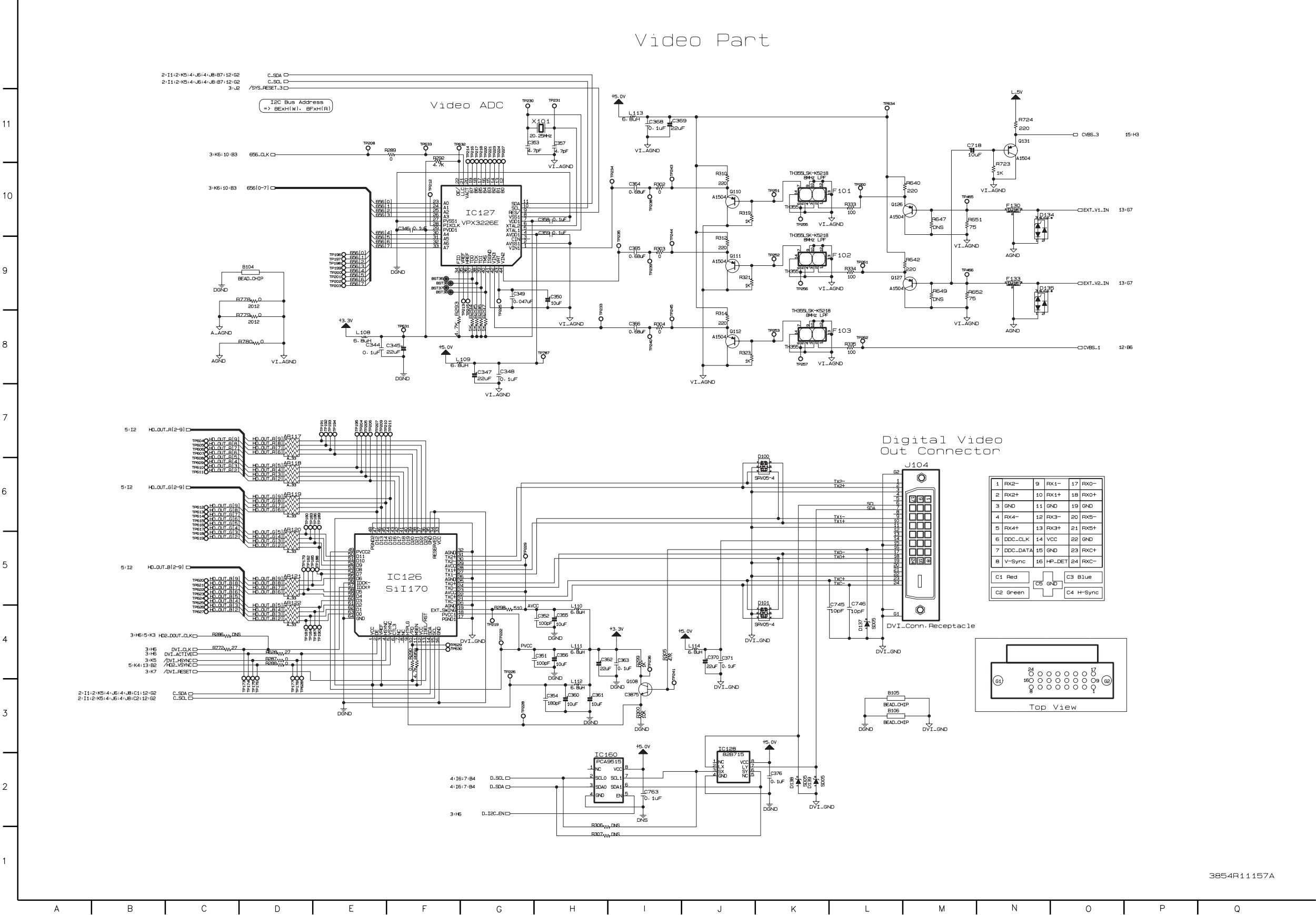


## 7. AUDIO PROCESSOR, SPDIF OUT CIRCUIT DIAGRAM

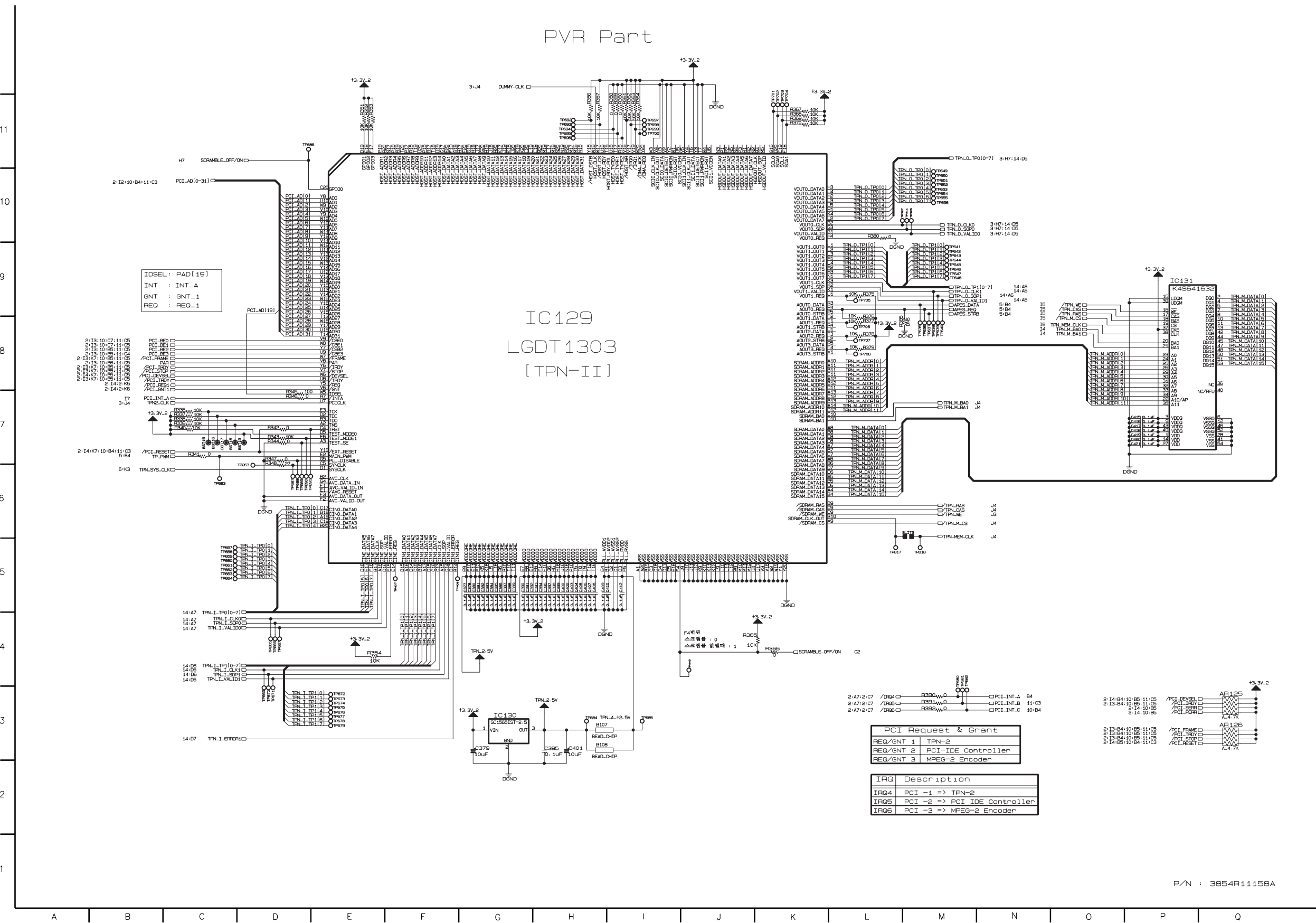




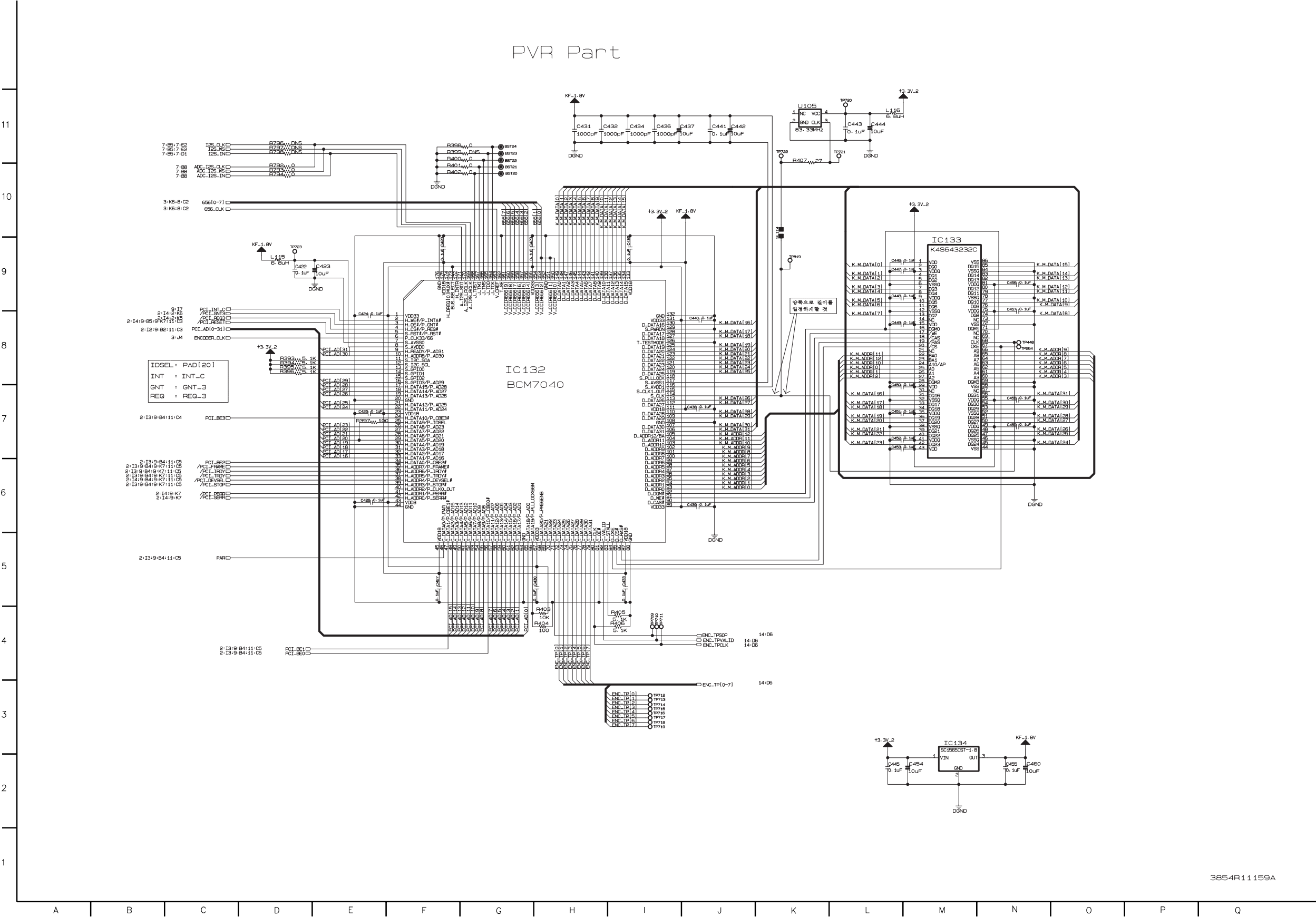
8. NTSC DECODER, DVI OUTPUT CIRCUIT DIAGRAM



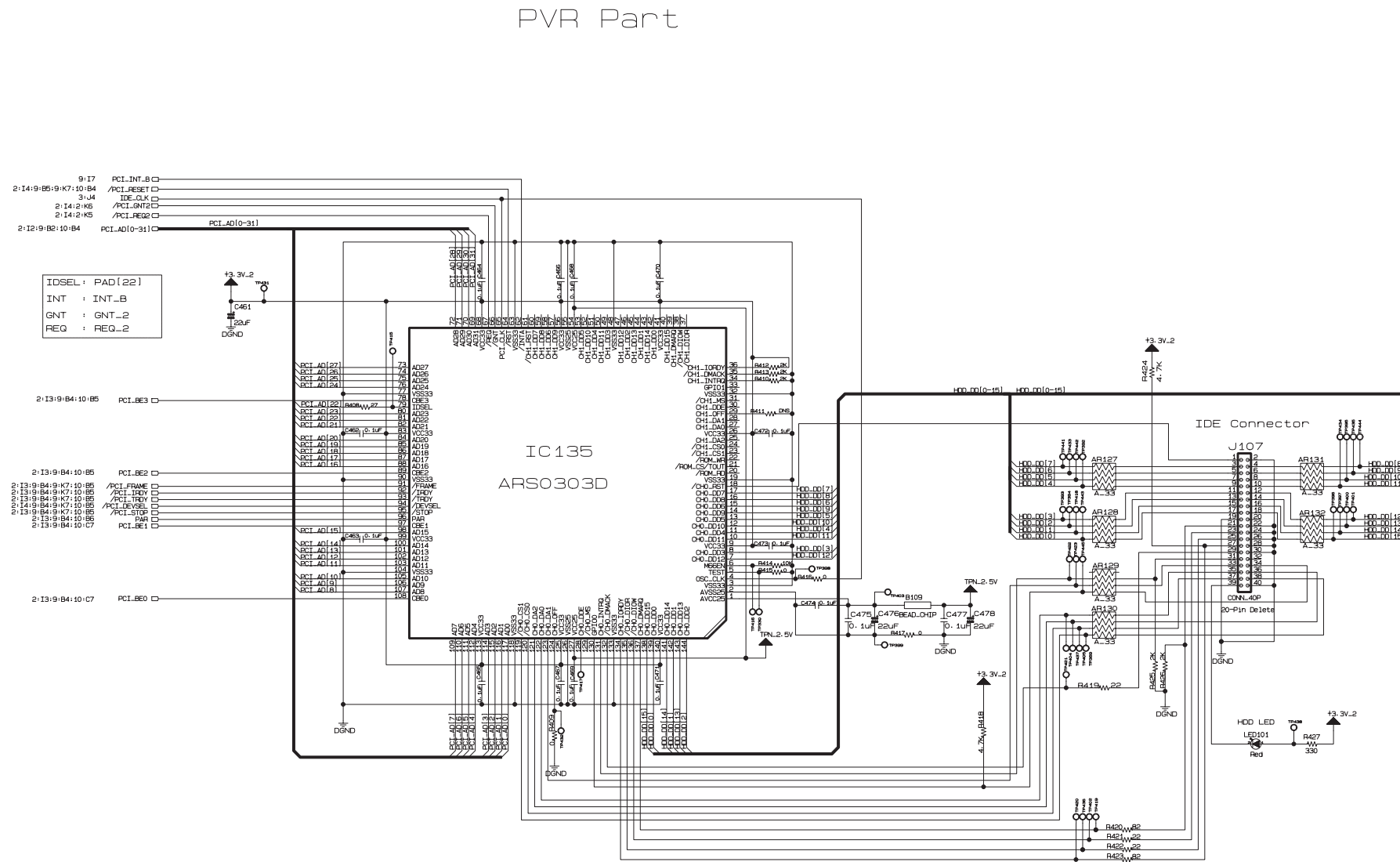
9. TPN-II, MEMORY CIRCUIT DIAGRAM



10. MPEG ENCODER & MEMORY CIRCUIT DIAGRAM



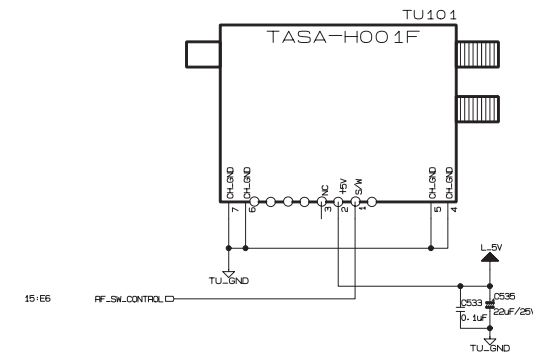
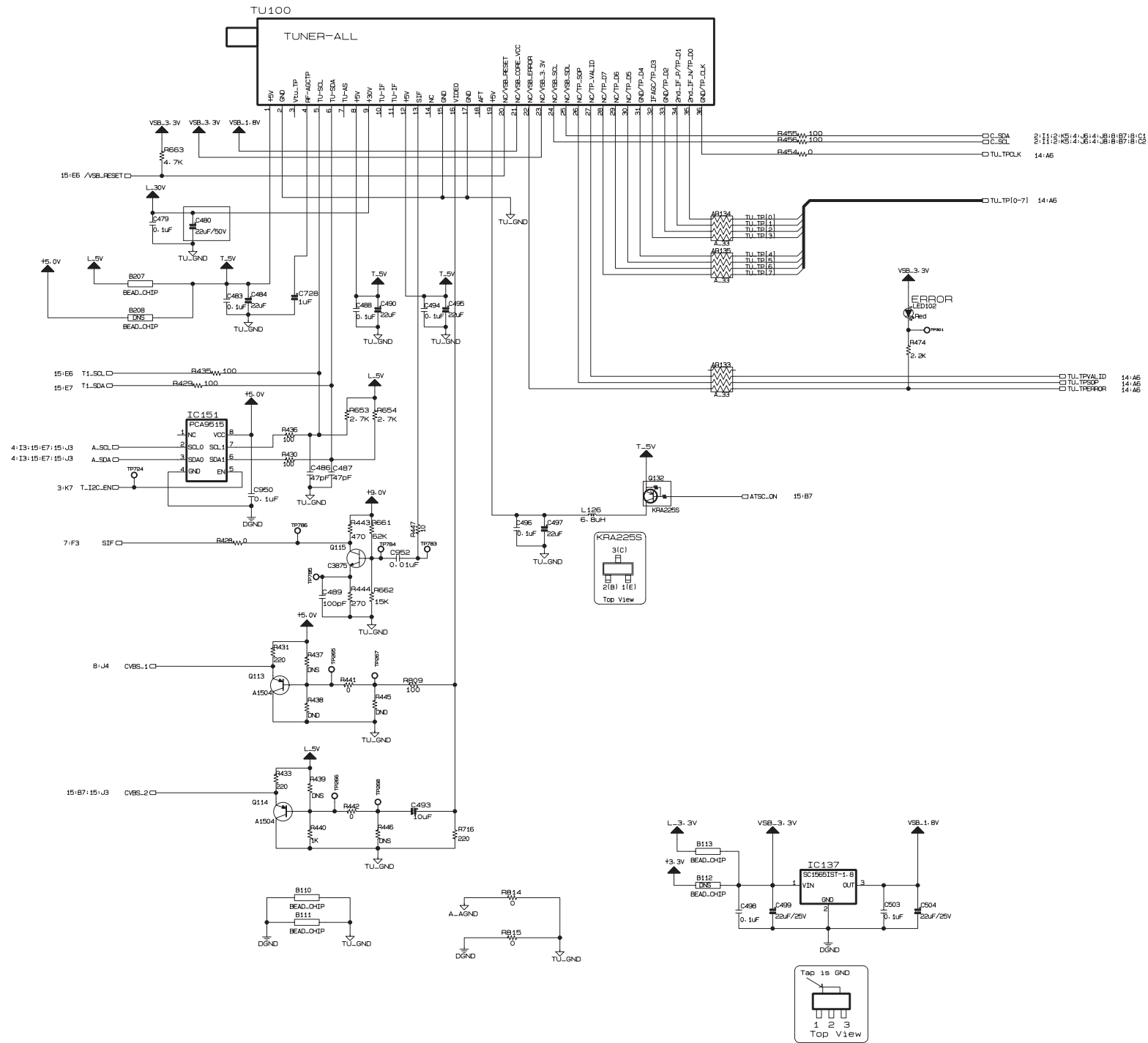
## 11. PCI2IDE CONTROLLER CIRCUIT DIAGRAM



3854R1 1160A

## 12. ATSC/QAM/NTSC NIM TUNER CIRCUIT DIAGRAM

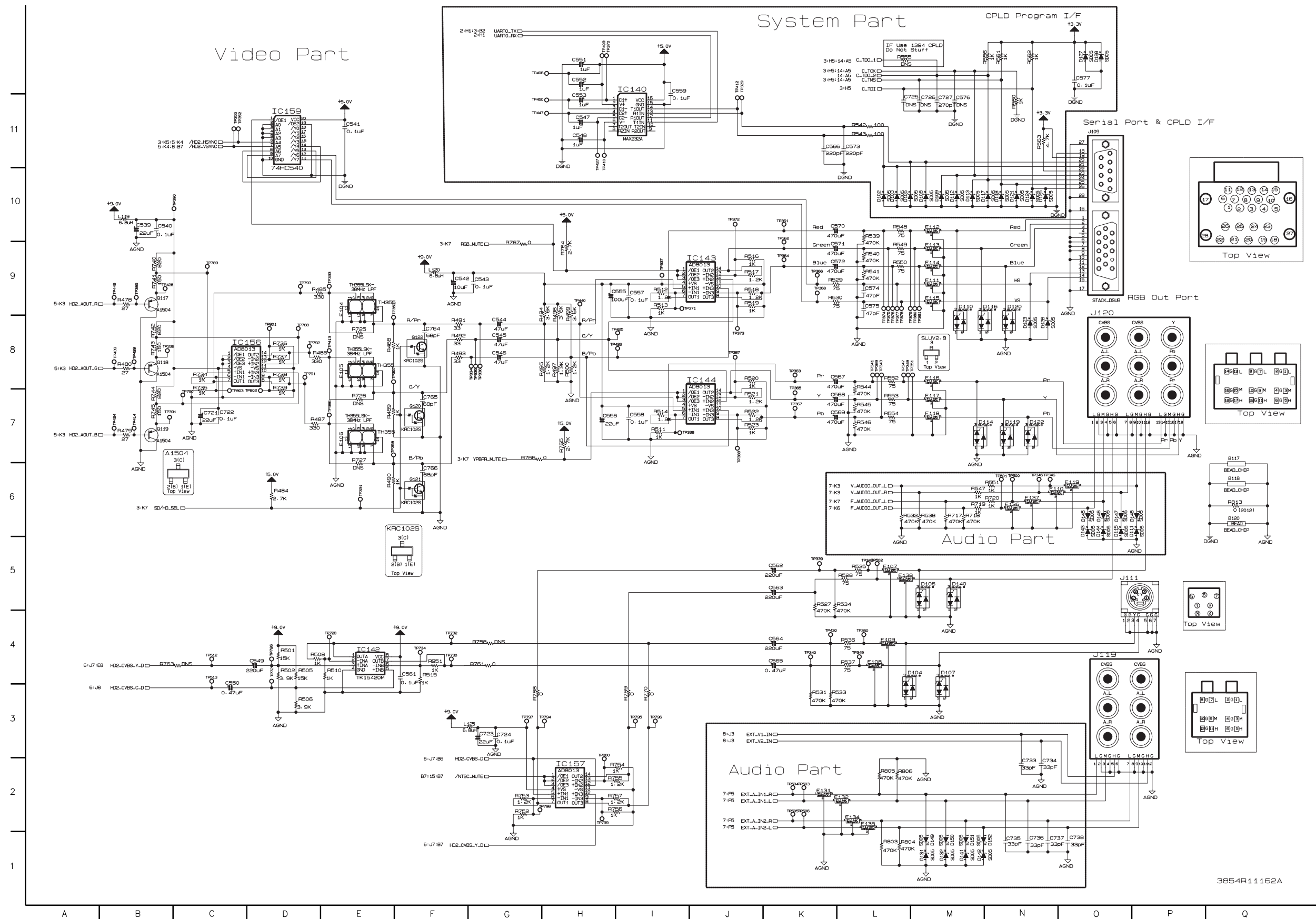
# Front End Part



3854R11161A



### 13. AUDIO/VIDEO OUT CIRCUIT DIAGRAM



11

10

9

8

7

6

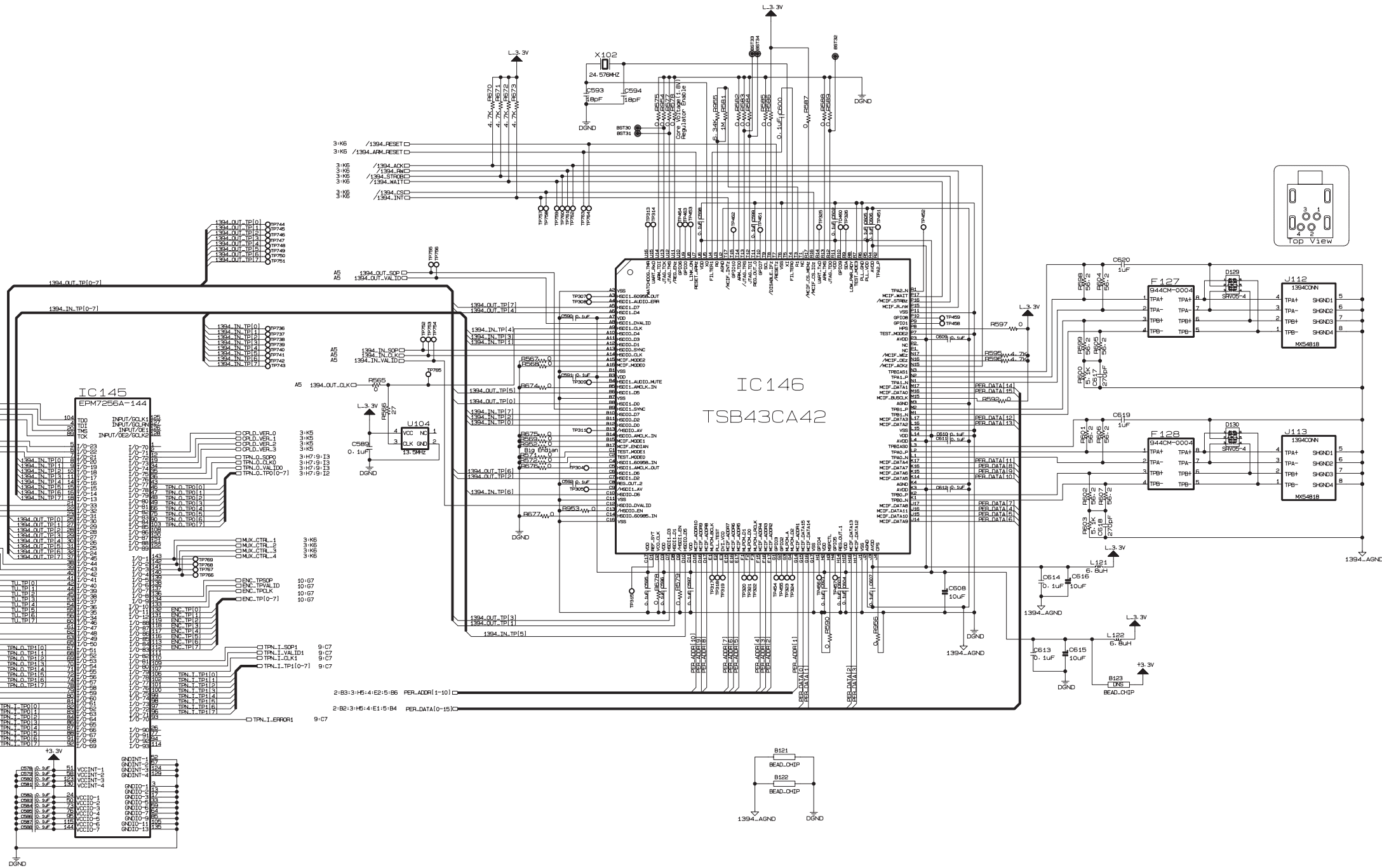
5

4

3

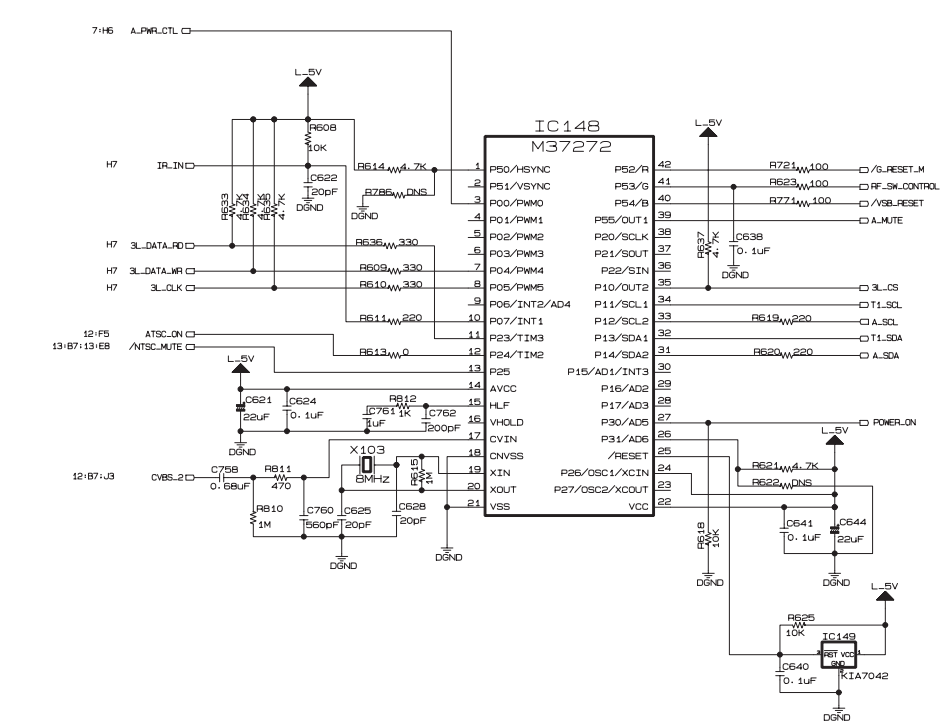
2

1



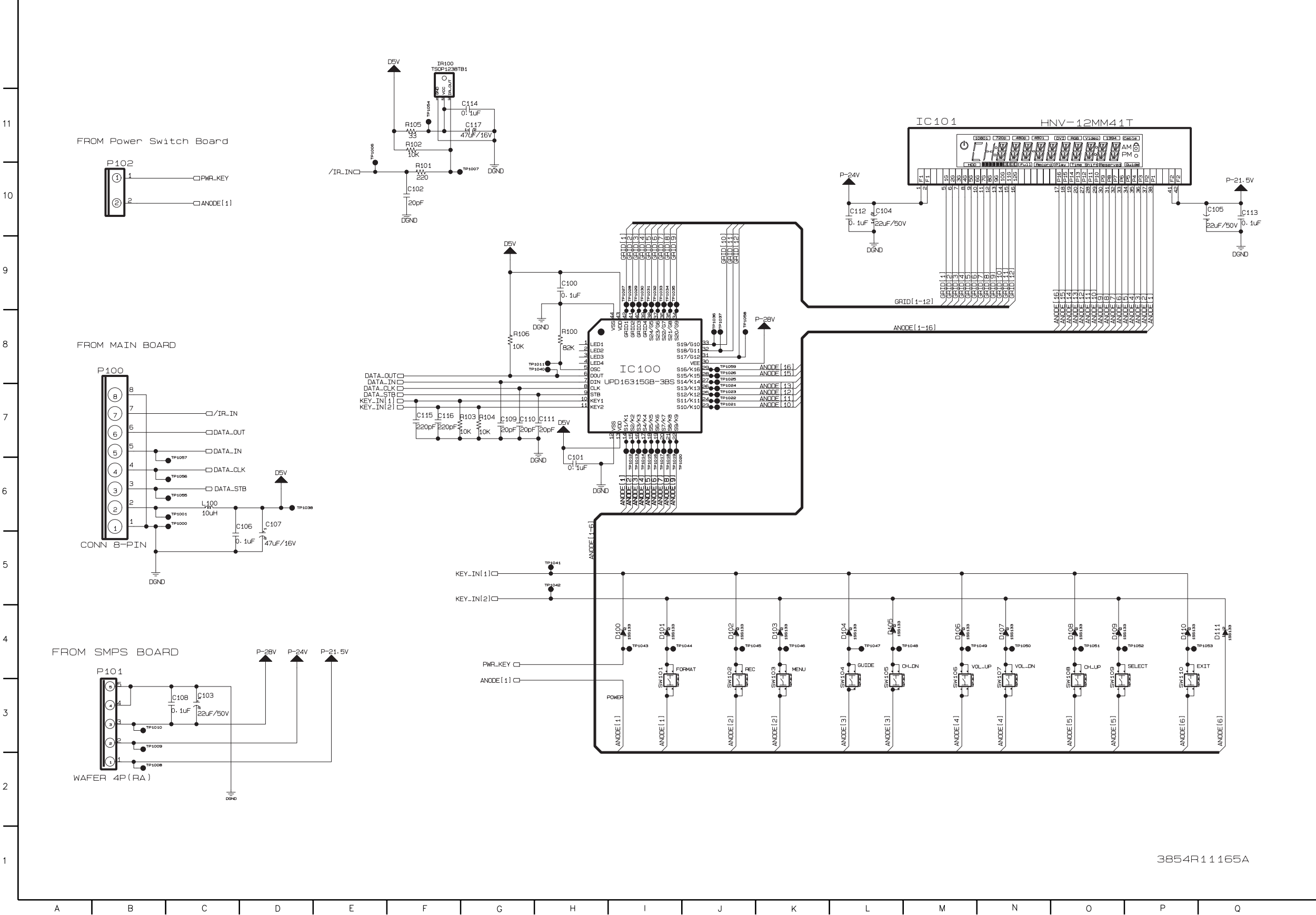
3-96

3-97



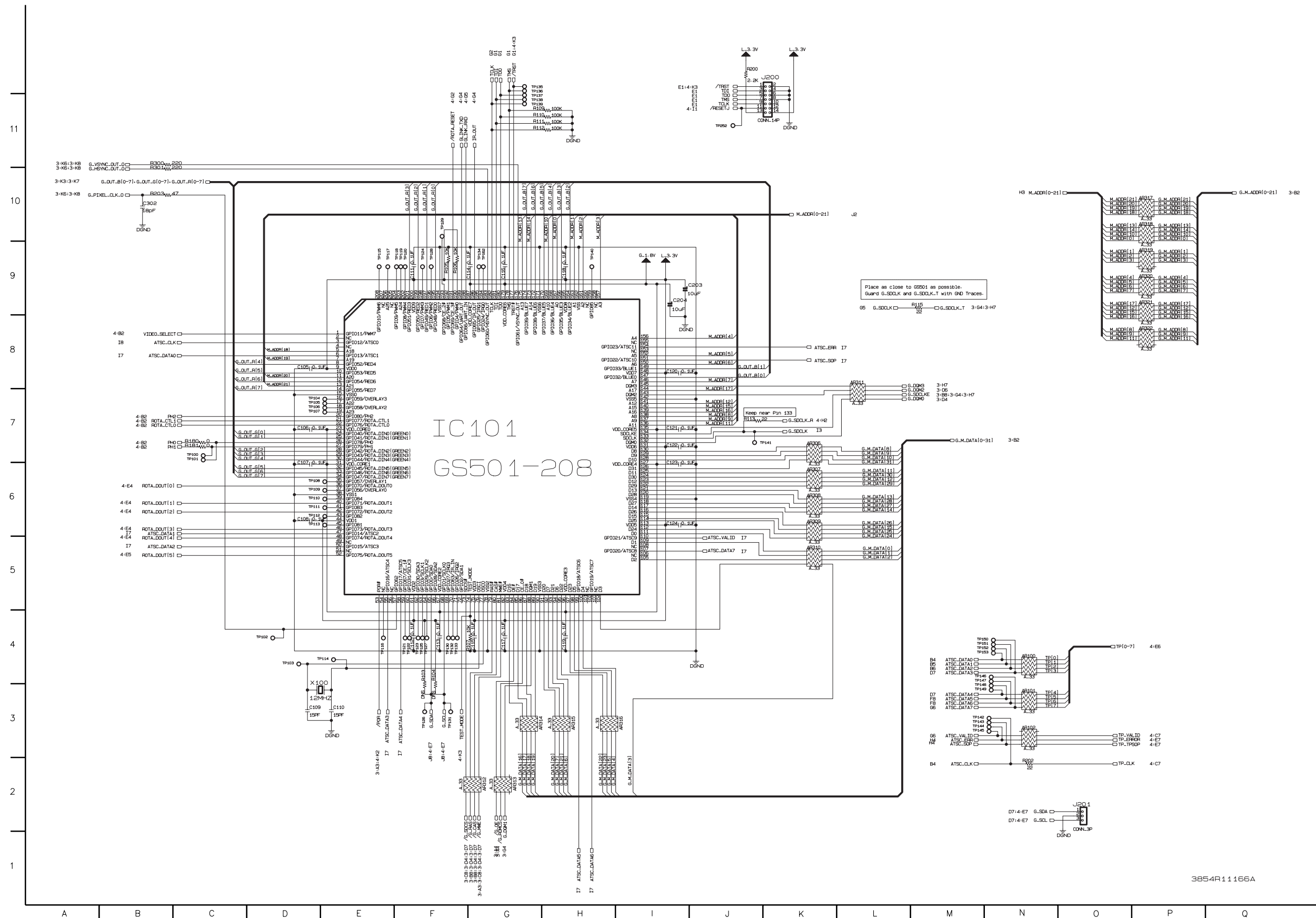


16. FRONT CIRCUIT DIAGRAM

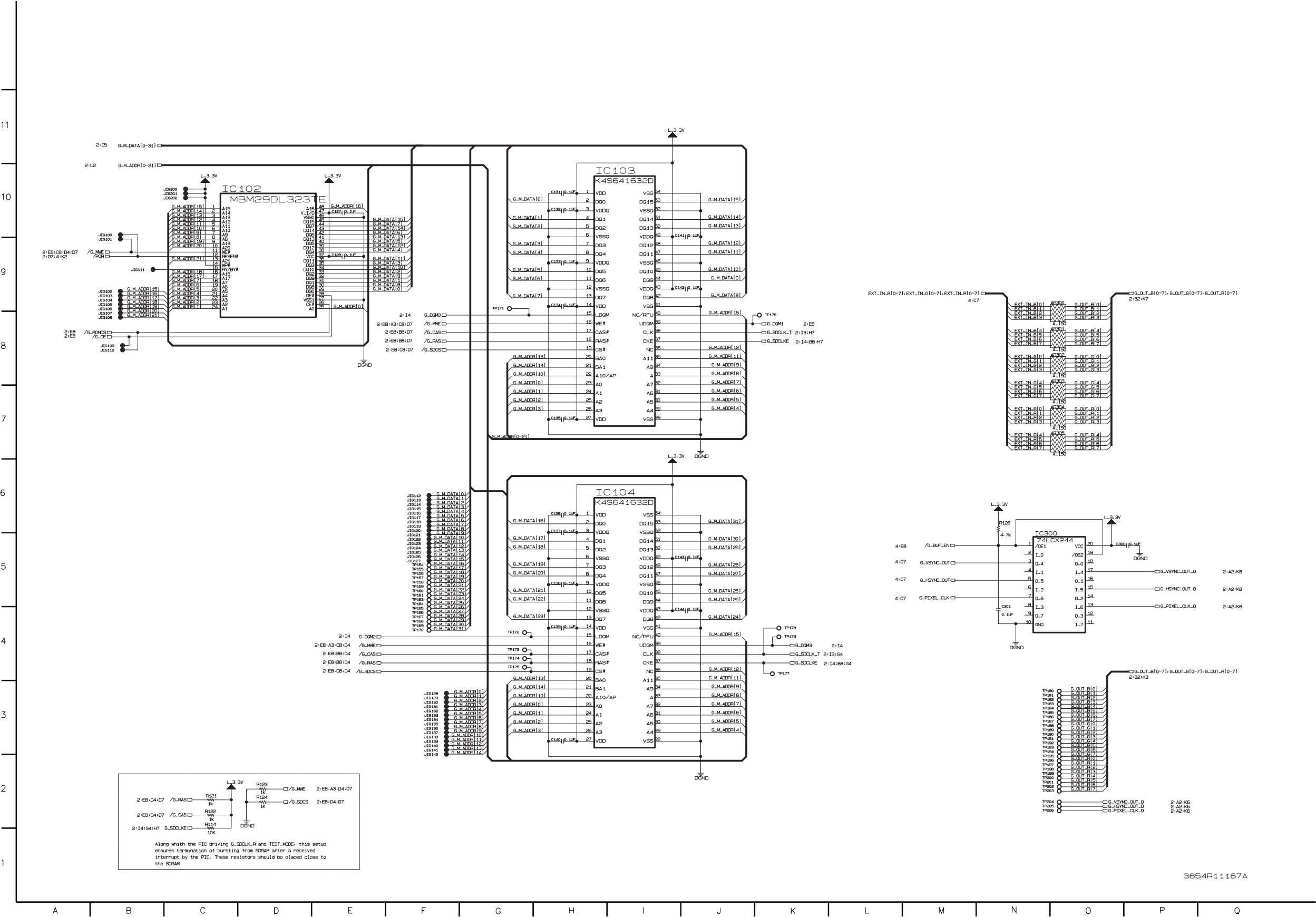


3854R11165A

## 17. GEMSTAR CONTROLLER CIRCUIT DIAGRAM

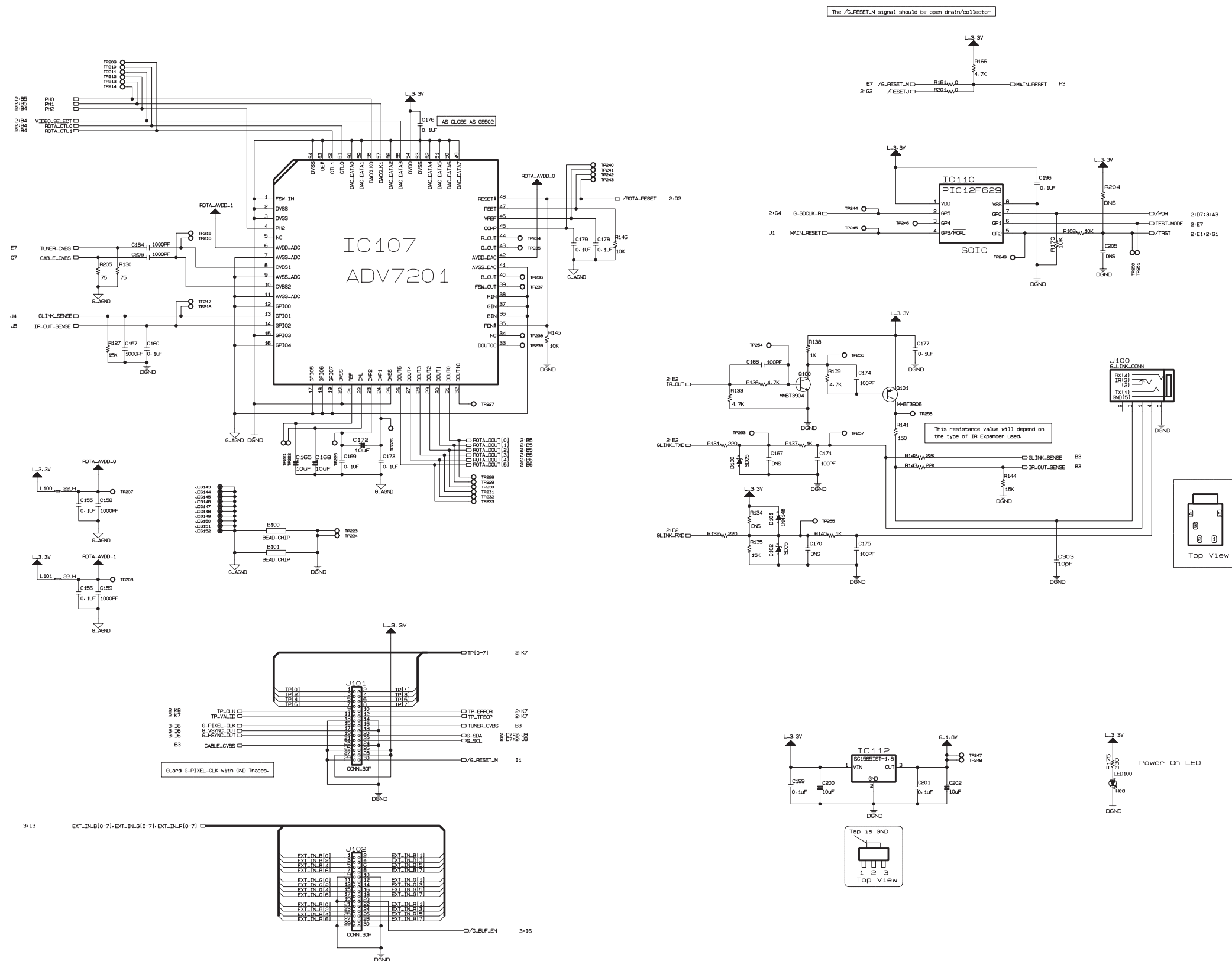


18. GEMSTAR MEMORY CIRCUIT DIAGRAM



3854R11167A

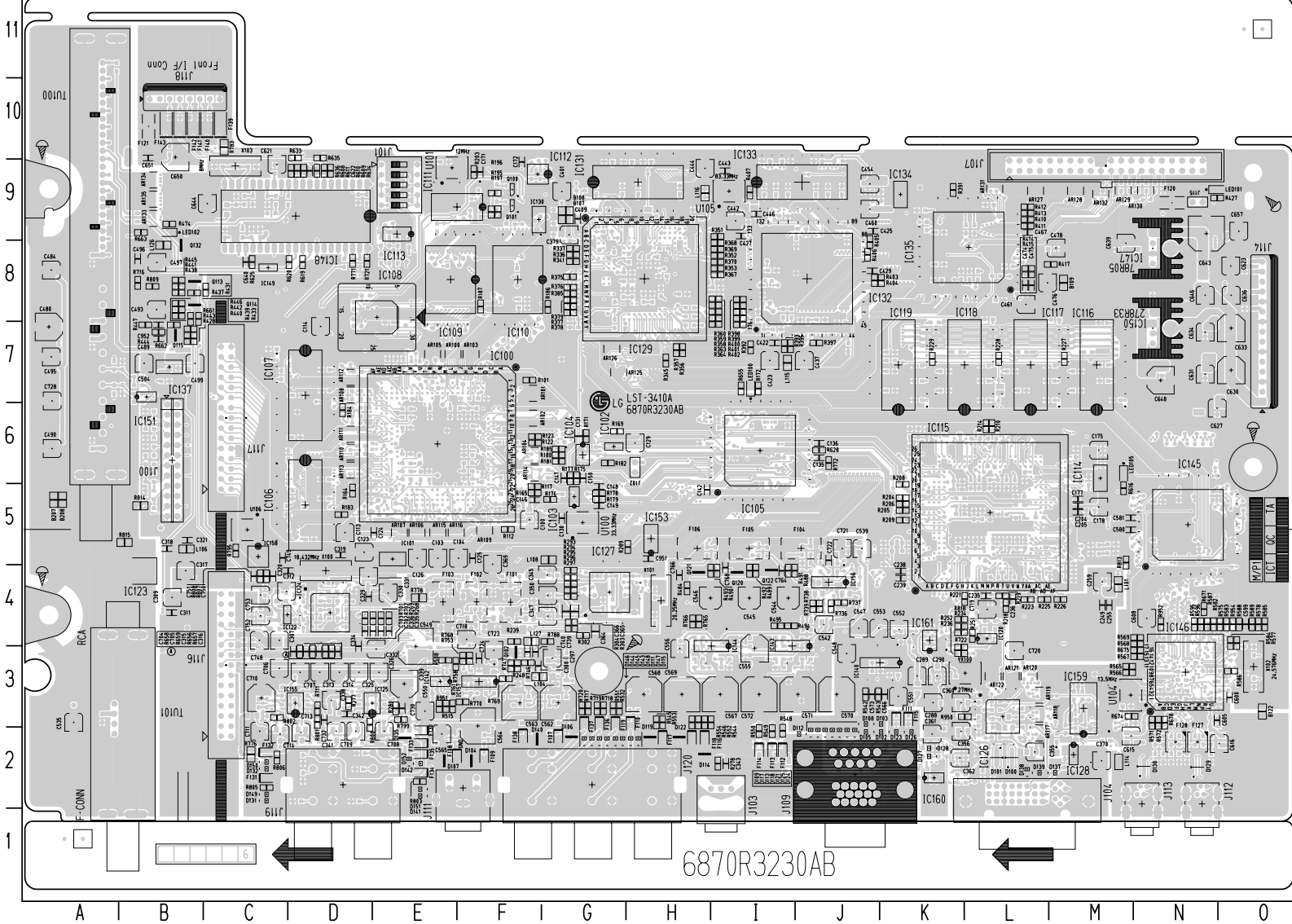
## 19. GEMSTAR MICOM, I/F CIRCUIT DIAGRAM



3854R11168A

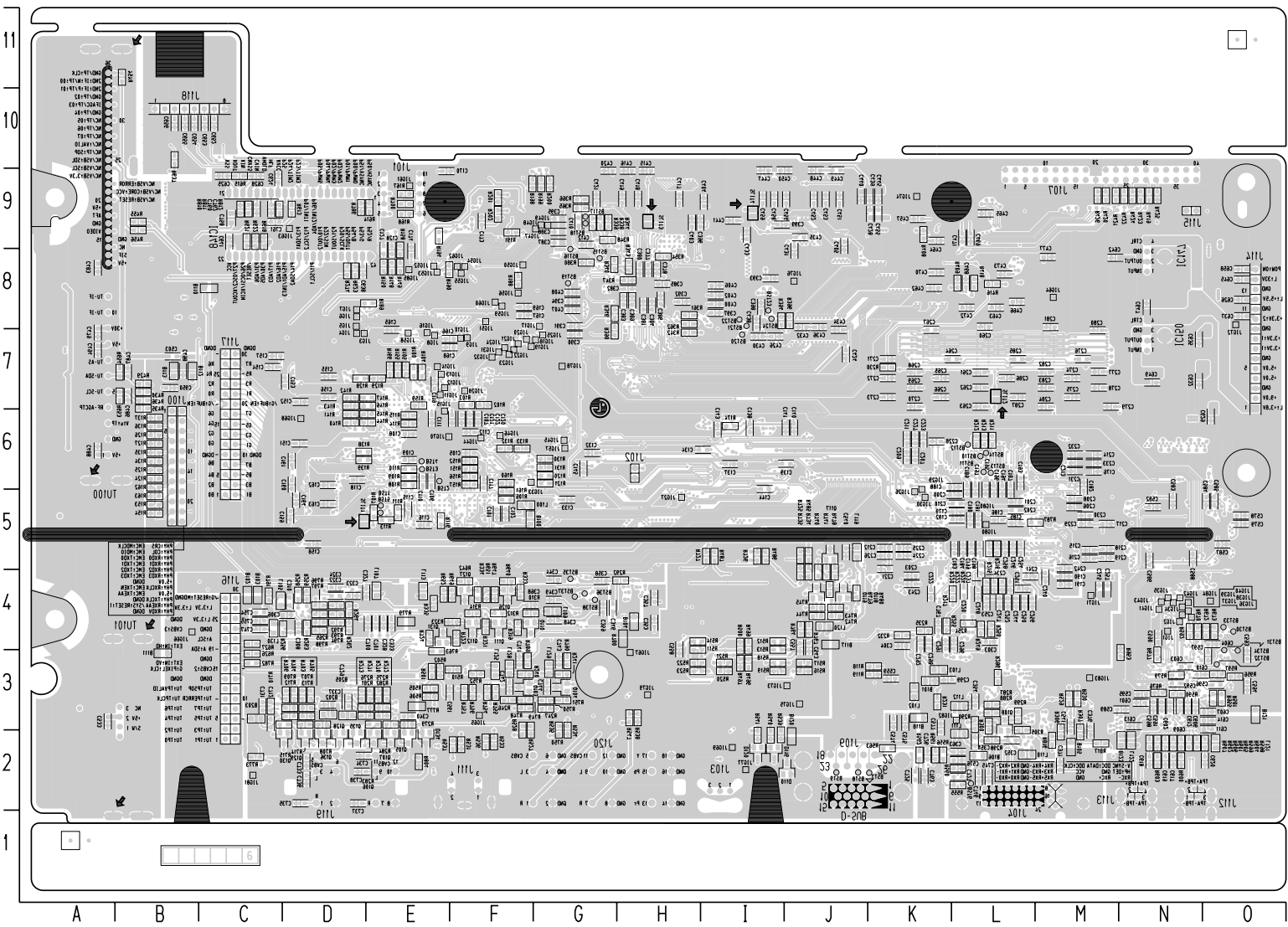
# PRINTED CIRCUIT DIAGRAMS

## 1. DIGITAL MAIN PRINTED CIRCUIT DIAGRAMS(TOP)





2. DIGITAL MAIN PRINTED CIRCUIT DIAGRAMS(BOTTOM)



LOCATION GUIDE

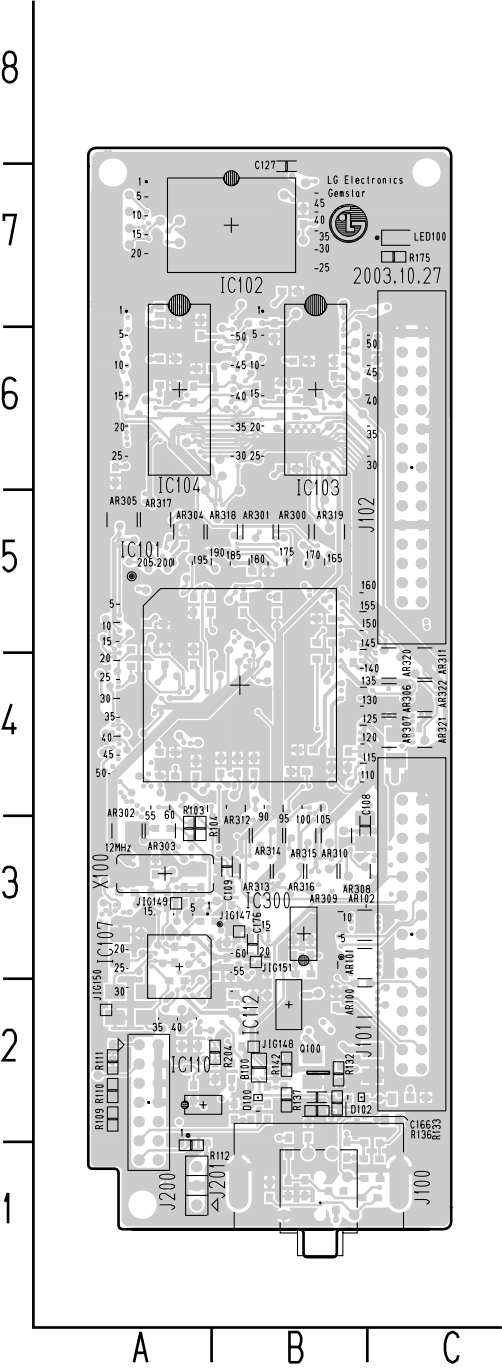
R100	F5	C132	G6	C219	M5	C222	DA	C438	18	C606	N3	J1015	E6	J1080	L5	R132	F6	R264	DA	R479	JA	R648	F4	R817	M2	TP199	18	TP35	D6	TP448	19	TP54	E6	TP638	05	TP745	NA
R101	K3	C133	G5	C220	L4	C223	DA	C439	K9	C607	03	J1016	E7	J1081	C2	R133	F6	R265	DA	R480	JA	R649	F4	R818	M3	TP200	18	TP36	D7	TP449	09	TP55	K5	TP644	05	TP746	04
R102	C4	C134	16	C221	K5	C224	EA	C440	J9	C608	N3	J1017	08	J1082	L3	R134	86	R270	E3	R485	JA	R650	F4	R819	M4	TP201	18	TP37	D8	TP450	12	TP56	K6	TP645	05	TP747	04
R103	CA	C137	16	C222	K4	C227	EA	C441	19	C610	N3	J1018	07	J1083	M3	R135	86	R271	E3	R486	15	R651	F4	R820	M5	TP202	18	TP38	D9	TP451	13	TP57	K7	TP646	05	TP748	04
R104	HA	C138	16	C223	K6	C228	EA	C445	K9	C611	03	J1019	F7	J1084	04	R136	86	R272	E3	R487	15	R652	F4	R821	M6	TP203	18	TP39	D10	TP452	14	TP58	K8	TP647	05	TP749	04
R105	M2	C139	16	C224	K5	C233	EA	C447	19	C612	N3	J1020	07	J1085	E8	R137	86	R273	E3	R488	15	R653	F4	R822	M7	TP204	18	TP40	D11	TP453	15	TP59	K9	TP648	05	TP750	04
R106	L2	C140	16	C225	K5	C237	03	C448	19	C613	N3	J1021	F7	J1086	07	R138	86	R274	08	R497	13	R654	04	R823	07	TP205	18	TP41	D12	TP454	16	TP60	NA	TP649	05	TP751	04
R110	08	C141	16	C226	K5	C240	E3	C449	19	C614	03	J1022	F7	J1087	07	R139	86	R275	03	R499	14	R655	04	R824	08	TP206	18	TP42	D13	TP455	17	TP61	NA	TP650	05	TP752	04
R111	B3	C143	16	C227	K6	C244	E3	C450	J9	C617	N2	J1023	F7	J1088	07	R140	86	R276	03	R500	14	R656	04	R825	09	TP207	18	TP43	D14	TP456	18	TP62	NA	TP651	05	TP753	04
R112	B7	C144	15	C228	K6	C248	04	C451	J9	C618	N2	J1024	F7	J1089	07	R141	86	R277	03	R501	14	R657	04	R826	10	TP208	18	TP44	D15	TP457	19	TP63	NA	TP652	05	TP754	04
R113	B7	C145	16	C229	M5	C249	04	C452	J9	C619	N2	J1025	F7	J1090	07	R142	86	R278	03	R502	14	R658	04	R827	11	TP209	18	TP45	D16	TP458	20	TP64	NA	TP653	05	TP755	04
R117	JA	C151	06	C230	M5	C249	04	C453	J9	C620	02	J1026	G7	J1091	07	R143	86	R279	03	R503	14	R659	04	R828	12	TP210	18	TP46	D17	TP459	21	TP65	NA	TP654	05	TP756	04
R118	K3	C152	07	C231	M6	C251	L2	C455	K9	C624	C9	J1026	K5	J1092	07	R144	86	R280	03	R504	14	R660	04	R829	13	TP211	18	TP47	D18	TP460	22	TP66	NA	TP655	05	TP757	04
R120	J2	C153	07	C232	M6	C252	L2	C456	J9	C625	C9	J1027	H5	J1093	07	R145	86	R281	03	R505	14	R661	04	R830	14	TP212	18	TP48	D19	TP461	23	TP67	NA	TP656	05	TP758	04
R121	03	C154	07	C233	M6	C253	LA	C457	K9	C626	08	J1028	F7	J1094	07	R146	86	R282	03	R506	14	R662	04	R831	15	TP213	18	TP49	D20	TP462	24	TP68	NA	TP657	05	TP759	04
R123	N2	C155	07	C234	L4	C254	C3	C458	19	C628	C9	J1029	K5	J1095	07	R147	86	R283	03	R507	14	R663	04	R832	16	TP214	18	TP50	D21	TP463	25	TP69	NA	TP658	05	TP760	04
R202	03	C156	07	C237	LA	C257	HA	C459	19	C629	06	J1030	K5	J1096	07	R148	86	R284	03	R508	14	R664	04	R833	17	TP215	18	TP51	D22	TP464	26	TP70	NA	TP659	05	TP761	04
R203	C3	C157	C7	C240	MA	C258	04	C462	K8	C632	N7	J1030	K5	J1097	07	R149	86	R285	03	R509	14	R665	04	R834	18	TP216	18	TP52	D23	TP465	27	TP71	NA	TP660	05	TP762	04
R205	D3	C158	05	C241	LA	C259	04	C463	L8	C635	N7	J1031	F7	J1098	07	R150	86	R286	03	R510	14	R666	04	R835	19	TP217	18	TP53	D24	TP466	28	TP72	NA	TP661	05	TP763	04
R211	E5	C159	05	C242	M5	C263	L2	C464	K9	C637	08	J1032	F7	J1099	07	R151	86	R287	03	R511	14	R667	04	R836	20	TP218	18	TP54	D25	TP467	29	TP73	NA	TP662	05	TP764	04
RS100	L6	C160	D6	C243	K4	C268	F4	C465	L9	C638	08	J1033	F6	J1100	07	R152	86	R288	03	R512	14	R668	04	R837	21	TP219	18	TP55	D26	TP468	30	TP74	NA	TP663	05	TP765	04
RS111	L6	C161	D6	C244	LA	C271	HA	C466	L8	C641	C9	J1034	MA	J1101	07	R153	86	R289	03	R513	14	R669	04	R838	22	TP220	18	TP56	D27	TP469	31	TP75	NA	TP664	05	TP766	04
RS112	L6	C162	D6	C245	MA	C276	M2	C468	L8	C642	M6	J1035	MA	J1102	07	R154	86	R290	03	R514	14	R670	04	R839	23	TP221	18	TP57	D28	TP470	32	TP76	NA	TP665	05	TP767	04
RS113	L6	C163	D5	C246	L5	C277	HA	C469	L9	C645	08	J1036	MA	J1103	07	R155	86	R291	03	R515	14	R671	04	R840	24	TP222	18	TP58	D29	TP471	33	TP77	NA	TP666	05	TP768	04
RS114	L6	C164	D5	C247	LA	C278	HA	C470	HA	C647	M8	J1037	MA	J1104	07	R156	86	R292	03	R516	14	R672	04	R841	25	TP223	18	TP59	D30	TP472	34	TP78	NA	TP667	05	TP769	04
RS115	08	C165	E7	C248	L4	C280	HA	C471	L9	C649	N7	J1038	MA	J1105	07	R157	86	R293	03	R517	14	R673	04	R842	26	TP224	18	TP60	D31	TP473	35	TP79	NA	TP668	05	TP770	04
RS116	08	C166	F7	C250	LA	C281	HA	C472	L8	C652	C10	J1039	MA	J1106	07	R158	86	R294	03	R518	14	R674	04	R843	27	TP225	18	TP61	D32	TP474	36	TP80	NA	TP669	05	TP771	04
RS117	09	C167	F8	C251	LA	C282	HA	C473	L8	C653	C10	J1040	MA	J1107	07	R159	86	R295	03	R519	14	R675	04	R844	28	TP226	18	TP62	D33	TP475	37	TP81	NA	TP670	05	TP772	04
RS118	09	C168	F7	C252	LA	C283	HA	C474	HA	C654	B10	J1041	MA	J1108	07	R160	86	R296	03	R520	14	R676	04	R845	29	TP227	18	TP63	D34	TP476	38	TP82	NA	TP671	05	TP773	04
RS119	08	C169	F8	C253	LA	C284	HA	C475	HA	C655	B10	J1042	MA	J1109	07	R161	86	R297	03	R521	14	R677	04	R846	30	TP228	18	TP64	D35	TP477	39	TP83	NA	TP672	05	TP774	04
RS12	E5	C170	E9	C254	L5	C285	HA	C483	HA	C656	B10	J1043	MA	J1110	07	R162	86	R298	03	R522	14	R678	04	R847	31	TP229	18	TP65	D36	TP478	40	TP84	NA	TP673	05	TP775	04
RS120	17	C173	F9	C256	LA	C286	HA	C486	B7	C658	08	J1044	MA	J1111	07	R163	86	R299	03	R523	14	R679	04	R848	32	TP230	18	TP66	D37	TP479	41	TP85	NA	TP674	05	TP776	04
RS121	18	C174	E8	C257	MA	C287	09	C487	B7	C700	E4	J1044	MA	J1112	07	R164	86	R300	03	R524	14	R680	04	R849	33	TP231	18	TP67	D38	TP480	42	TP86	NA	TP675	05	TP777	04
RS122	18	C176	M6	C258	L5	C288	09	C488	A6	C701	E4	J1045	06	J1113	07	R165	86	R301	03	R525	14	R681	04	R850	34	TP232	18	TP68	D39	TP481	43	TP87	NA	TP676	05	TP778	04
RS123	18	C179	L5	C260	HA	C289	HA	C494	A7	C712	C3	J1046	F6	J1114	07	R166	86	R302	03	R526	14	R682	04	R851	35	TP233	18	TP69	D40	TP482	44	TP88	NA	TP677	05	TP779	04
RS124	18	C180	L5	C261	L7	C290	07	C498	07	C725	K2	J1047	09	J1115	07	R167	86	R303	03	R527	14	R683	04	R852	36	TP234	18	TP70	D41	TP483	45	TP89	NA	TP678	05	TP780	04
RS13	E6	C181	L5	C262	L7	C291	08	C503	B7	C726	K2	J1048	09	J1116	07	R168	86	R304	03	R528	14	R684	04	R853	37	TP235	18	TP71	D42	TP484	46	TP90	NA	TP679	05	TP781	04
RS130	04	C182	M6	C263	L7	C292	HA	C533	K3	C727	L2	J1049	09	J1117	07	R169	86	R305	03	R529	14	R685	04	R854	38	TP236	18	TP72	D43	TP485	47	TP91	NA	TP680	05	TP782	04
RS131	03	C183	L5	C264	L7	C293	18	C540	J5	C729	03	J105	08	J1118	07	R170	86	R306	03	R530	14	R686	04	R855	39	TP237	18	TP73	D44	TP486	48	TP92	NA	TP681	05	TP783	04
RS132	03	C184	L5	C265	K7	C294	08	C541	M3	C731	C3	J1050	F8	J1119	07	R171	86	R307	03	R531	14	R687	04	R856	40	TP238	18	TP74	D45	TP487	49	TP93	NA	TP682	05	TP784	04
RS133	04	C185	L5	C266	K7	C295	09	C543	JA	C733	02	J1051	F8	J1120	07	R172	86	R308	03	R532	14	R688	04	R857	41	TP239	18	TP75	D46	TP488	50	TP94	NA	TP683	05	TP785	04
RS134	03	C186	L5	C267	K7	C296	HA	C557	JA	C734	02	J1052	F8	J1121	07	R173	86	R309	03	R533	14	R689	04	R858	42	TP240	18	TP76	D47	TP489	51	TP95	NA	TP684	05	TP786	04
RS135	04	C187	L5	C26																																	

— 5 —  
— 4 —  
— 3 —  
— 2 —  
— 1 —

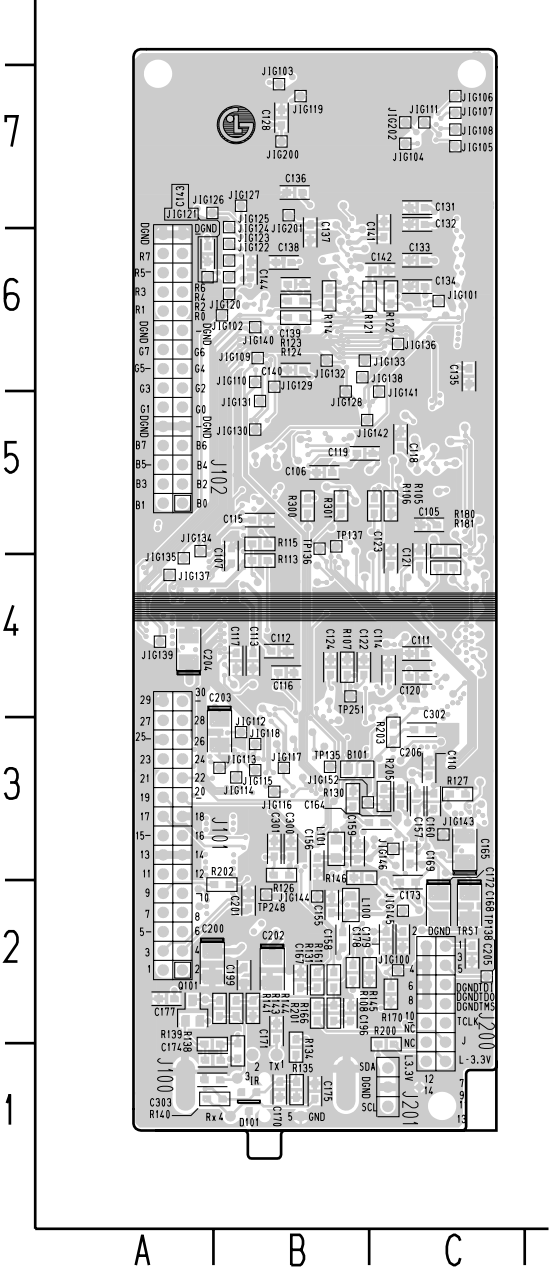


B001	F3	IC155	J3
B0101	D3	IC156	J4
C101	B4	IC157	K3
C102	D4	IC158	J2
C103	D2	L101	D4
C105	F2	L102	C4
C106	F2	L121	I4
C107	E4	L122	I2
C108	F4	L123	I3
C109	E4	L125	G1
C110	E5	P101	L3
C111	E5	P102	L3
C121	H5	P103	I1
C122	I4	PW101	B3
C124	J4	R100	B3
C125	I3	R101	F3
C126	I3	R102	F3
C127	I4	R103	F2
C128	I2	R105	F4
C129	I2	R106	H2
C130	J2	R107	H4
C131	G1	R108	H5
C132	H1	R121	G5
C133	I2	R122	G5
C134	H4	R123	H5
C135	I5	R124	G5
C151	K4	R125	G5
C152	K3	R126	G5
C154	K4	R127	J5
C155	K3	R128	I2
C156	L2	R129	I2
D101	F2	R130	I2
D102	F4	R131	H5
D121	H4	R132	H5
D123	H3	R133	H2
D124	H3	R151	L5
D125	H2	R154	J4
D126	H2	R155	J3
D127	G2	R156	K3
D128	G2	R157	K2
D129	G4	R158	K4
FH01	A2	R159	K3
FH02	A3	T101	G3
IC101	E3	TH01	D3
IC102	G4	T101	B3
IC103	G5	ZD151	H1
IC151	K4	ZD152	H5

4. GEMSTAR PRINTED CIRCUIT DIAGRAM(TOP)

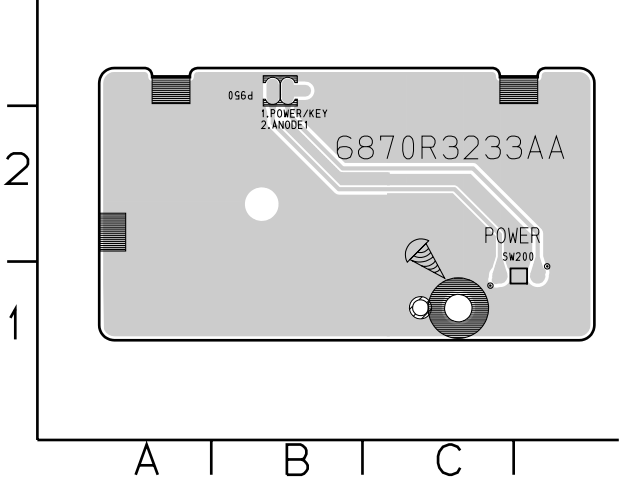


5. GEMSTAR PRINTED CIRCUIT DIAGRAM(BOTTOM)

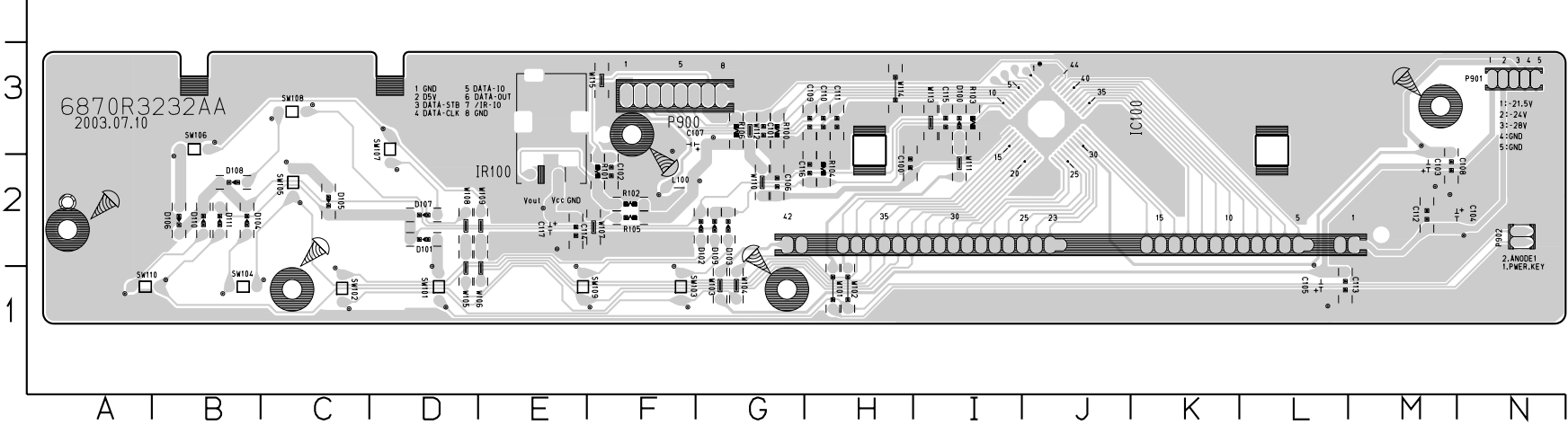




6. KEY PRINTED CIRCUIT DIAGRAM



7. TIMER PRINTED CIRCUIT DIAGRAM



LOCATION GUIDE			
C100	H2	D109	G2
C101	G3	D110	B2
C102	F2	D111	B2
C103	M2	DIG101	J3
C104	N2	IR100	E3
C105	L1	L100	F2
C106	G2	P300	F3
C107	F3	P301	N3
C108	M2	P302	N2
C109	H2	R100	G3
C110	H3	R101	F2
C111	H3	R102	F2
C112	M2	R103	I3
C113	L1	R104	H2
C114	E2	R105	F2
C115	I3	R106	G3
C116	H2	SW101	D1
C117	E2	SW102	C1
C100	I3	SW103	F1
D101	D2	SW104	B1
D102	G2	SW105	C2
D103	G2	SW106	B3
D104	B2	SW107	D3
D105	C2	SW108	C3
D106	B2	SW109	E1
D107	D2	SW110	A1
D108	B2		

NOTES) ⚠ Warning  
Parts that are shaded are critical  
With respect to risk of fire or  
electrical shock.

## SECTION 4 REPLACEMENT PARTS LIST

MODEL : LST-3410A AA1UZZ(ZENITH)

NSP : Not available as service parts.

RUN DATE :25-NOV-03

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
*** INDIVIDUAL PARTS ***						
		250	3110R-V016B	CASE	LST-3410A AA1UZZ PRESS	
⚠		300	6410RAHK02D	POWER CORD	KJ-10W/NISPT-2(ST-HS:80MM) WIT	
		463	353-051G	SCREW,DRAWING	+ 2 D3.0 L8.0 MSWR3/FN TB ROUN	
		465	353-046K	SCREW,DRAWING	SPECIAL (3X10 B.K)	
		466	1BK-0512391	BOLT,HEXAGON SOCKET HEAD	D5.1 L7.0 STS 430	
		469	1NHD8220060	NUT,HEXAGON	4 D3/8"-16 NO RULE BSP/BN,BSW/	
		470	1WSV1200084	WASHER,SPRING LOCK	NO RULE D12.0 SUS 304	
*** PACKING ACCESSORY ***						
		801	3835RS0061N	INSTRUCTION ASSEMBLY	VCR LST-3410A AA1UZZ	
		802	3890R-H828E	BOX	LST-3410A AA1UZZ SW3-A STB	
		803	3920R-E059A	PACKING,CASING	S.T.B ZENITH 0.02 80 EPE 4 ? ?	
		804	3858R-S001A	SHEET (MECH)	Packing LDPE 600M 630MM 0.5 VC	NSP
		806	6850R-CAEX1	CABLE,COAXIAL	FREE OF HAZARDOUS RF - CABLE N	
		808	6910R-AB02A	BATTERY,ALKALINE	LR06 STC ALKALINE 1.5V .MA/H A	
		811	6611R1G003A	PLUG ASSEMBLY	1WAY YL 1.8M GLOBAL	
		812	6611R2G003A	PLUG ASSEMBLY	2WAY RED/WHITE 1.8M GLOBAL	
		820	6611R3G001B	PLUG ASSEMBLY	3WAY 3WAY RD/BL/GR COMPONENT F	
		825	6850R-ZAC03	CABLE,COAXIAL	88766-2800 DVI CABLE MOLEX 300	
*** REMOTE CONTROLLER ***						
		900	6711R1N139A	REMOTE CONTROLLER ASSEMBLY	D6 LST-3410 LG	
*** CHASSIS ASSEMBLY ***						
		A44	3141R-V013F	CHASSIS ASSEMBLY	LST-3410A AA1UZZ	NSP
		260	3140R-V007A	CHASSIS	MAIN(LST-3410Z) PRESS	NSP
		265	4930R-0348A	HOLDER	POWER CORD (DV6000)	
		320	3720R-D090C	PANEL,VIDEO	VCR LST-3410A AA1UZZ PRESS	
		457	353-046N	SCREW,DRAWING	SPECIAL(3X8 BK.)	
*** SUPPORTER ASSEMBLY ***						
		A51	4981R-0010C	SUPPORTER ASSEMBLY	CASE HDD(LST-3410A STB )	
		270	3111R-0214B	CASE ASSEMBLY	HDD (PVR STB WITH GASKET EMI S	
		271	3110R-P015A	CASE	DVD - HARD DISC(PVR STB)	
		271A	5040R-0076A	RUBBER	DVD - H_DISC (HDR)	
		271B	4930R-0332A	HOLDER	DVD - H_DISC (HDR)	
*** PANEL ASSEMBLY , FRONT ***						
		A43	3501R-5994A	BOARD ASSEMBLY	VCR LST-3410A AA1UZZ	
		280	3721R-F380E	PANEL ASSEMBLY,FRONT	VCR LST-3410A AA1UZZ	NSP
		452	353-051A	SCREW,DRAWING	SPECIAL	
		A50	6871R-3232Z	PWB(PCB) ASSEMBLY,TOTAL	LST-3410Z TIMER+KEY	
		C100	0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
⚠		C101	0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
⚠		C102	0CX2200K408	CAPACITOR TUBULA(T.C)	22P 50V J SL TP26	
		C103	0CE2264K638	CAPACITOR,ELECTROLYTIC	22M SRA 50V M FM5 TP(5)	
		C104	0CE2264K638	CAPACITOR,ELECTROLYTIC	22M SRA 50V M FM5 TP(5)	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C105	0CE2264K638	CAPACITOR,ELECTROLYTIC	22M SRA 50V M FM5 TP(5)	
		C106	0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C107	0CE4764F638	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C108	0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C109	0CX2200K408	CAPACITOR TUBULA(T.C)	22P 50V J SL TP26	
⚠		C110	0CX2200K408	CAPACITOR TUBULA(T.C)	22P 50V J SL TP26	
⚠		C111	0CX2200K408	CAPACITOR TUBULA(T.C)	22P 50V J SL TP26	
		C112	0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C113	0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C114	0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C115	0CN2210K518	CAPACITOR TUBULA(HIGH DIELE)	220P 50V K B TA26	
		C116	0CN2210K518	CAPACITOR TUBULA(HIGH DIELE)	220P 50V K B TA26	
		C117	0CE4764F638	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		D100	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D101	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D102	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D103	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D104	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D105	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D106	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D107	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D108	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D109	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D110	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D111	0DD133009AA	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		DIG101	6302R-V219A	DIGITRON	HNV-12MM41T SSSDI SEG VFD PVRI	
		IC100	0IPRPNE001A	IC,PERIPHERALS	UPD16315GB-3BS NEC 44 QFP BK F	
		IR100	6712R1538GC	REMOTE CONTROLLER RECEIVER	TSOP1238TB1 VISHAY(TEMIC) 37-9	
		L100	0LR0102K035	INDUCTOR RADIAL LEAD	10M K 6X6 L5 TP	
		R100	0RD8202F608	RESISTOR,FIXED CARBON FILM	82K OHM 1/6 W 5% TA26	
		R101	0RD2200F608	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R102	0RD1002F608	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R103	0RD1002F608	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R104	0RD1002F608	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R105	0RD0332F608	RESISTOR,FIXED CARBON FILM	33 OHM 1/6 W 5% TA26	
		R106	0RD1002F608	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		SW101	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW102	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW103	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW104	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW105	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW106	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW107	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW108	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW109	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW110	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
		SW200	556-282C	SWITCH,TACT	SKQNPED ALPS DC 12 V 50 MA TA	
*** BOARD ASSEMBLY , TOTAL POWER ***						
		A47	3501R-2232A	BOARD ASSEMBLY	VCR PVR2 SMPS	
		BD01	636-004C	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	
		BD101	0DRGF00011A	DIODE,RECTIFIERS	GBU6J GULF ST NON 600V 6A 175A	
⚠		C101	624-088F	CAPACITOR,DRAWING	PCX2 275V 0.1UF,M (PILKO)	
⚠		C102	624-088F	CAPACITOR,DRAWING	PCX2 275V 0.1UF,M (PILKO)	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C103	0CE277JR6A0	CAPACITOR, FIXED ELECTROLYTIC	270UF SMH, HC 250V 20% VNSN BUL	
		C105	0CQ1031Y519	CAPACITOR, FIXED FILM	0.01UF D 630V 10% PE NI TP5	
		C106	624-087B	CAPACITOR	HIGH-VOL 100P/1KV SMPS SAMHWA	
		C107	0CE1054K638	CAPACITOR, ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C108	624-085D	CAPACITOR	CE 47UF/50V KME (SMPS)	
		C109	0CQ1041N409	CAPACITOR, FIXED FILM	0.1UF D 100V 5% PE TP5	
⚠		C110	0CG1020U630	CAPACITOR, SEMI CERAMIC	1000PF 400V M E(Z5U) R	
⚠		C111	0CG2220U630	CAPACITOR, SEMI CERAMIC	2200 PF 400V M E R (NK, AD, SD)	
		C121	0CE1054K638	CAPACITOR, ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C122	0CE2282F611	CAPACITOR, FIXED ELECTROLYTIC	2200UF KMF 16V 20% BK7.5 FL	
		C124	624-082H	CAPACITOR	CE 1000UF/10V SHL(10*12.5)T/P	
		C125	0CE228BF630	CAPACITOR, FIXED ELECTROLYTIC	2200UF KME TYPE 16V 20% FM5 BU	
		C126	0CE228BF630	CAPACITOR, FIXED ELECTROLYTIC	2200UF KME TYPE 16V 20% FM5 BU	
		C127	624-082H	CAPACITOR	CE 1000UF/10V SHL(10*12.5)T/P	
		C128	0CE108EH610	CAPACITOR, FIXED ELECTROLYTIC	1000UF KMG 25V 20% BULK FL	
		C129	0CE108EH610	CAPACITOR, FIXED ELECTROLYTIC	1000UF KMG 25V 20% BULK FL	
		C130	624-082G	CAPACITOR, FIXED ELECTROLYTIC	CE 470UF/25V SHL(10*12.5)T/P	
		C131	624-085D	CAPACITOR	CE 47UF/50V KME (SMPS)	
		C132	624-085D	CAPACITOR	CE 47UF/50V KME (SMPS)	
		C133	0CE2276F638	CAPACITOR, ELECTROLYTIC	220U SMS 16V M FM5 TP(5)	
		C134	624-085D	CAPACITOR	CE 47UF/50V KME (SMPS)	
		C135	624-085D	CAPACITOR	CE 47UF/50V KME (SMPS)	
		C151	0CE3376D638	CAPACITOR, ELECTROLYTIC	330UF SMS 10V M FM5 TP5	
		C152	0CE3376D638	CAPACITOR, ELECTROLYTIC	330UF SMS 10V M FM5 TP5	
		C154	0CE3376D638	CAPACITOR, ELECTROLYTIC	330UF SMS 10V M FM5 TP5	
		C155	0CE1074F638	CAPACITOR, ELECTROLYTIC	100U SRA 16V M FM5 TP(5)	
		C156	0CE337CH618	CAPACITOR, FIXED ELECTROLYTIC	330UF SHL, SD 25V 20% FL TP 5	
		D101	0DD010009CA	DIODE, RECTIFIERS	EG01C TP SANKEN - - - - -	
		D101	0DD221009AA	DIODE, RECTIFIERS	ERA22-10 KFLB, TP, R T/P, FUJI	
		D102	0DD010009AC	DIODE, RECTIFIERS	EU01W(R-FORM) TP SANKEN	
		D121	4811R-0043A	BRACKET ASSEMBLY	FMB-G24H_HEAT SINK	
		D123	4811R-0043A	BRACKET ASSEMBLY	FMB-G24H_HEAT SINK	
		D124	4811R-0043A	BRACKET ASSEMBLY	FMB-G24H_HEAT SINK	
		D125	0DD400000AD	DIODE, RECTIFIERS	RU4YX BK SANKEN - - - - -	
		D126	0DD400000AD	DIODE, RECTIFIERS	RU4YX BK SANKEN - - - - -	
		D127	0DD010009AC	DIODE, RECTIFIERS	EU01W(R-FORM) TP SANKEN	
		D128	0DD010009AC	DIODE, RECTIFIERS	EU01W(R-FORM) TP SANKEN	
		D129	0DR104009BA	DIODE, RECTIFIERS	RL104F TP RECTRON - 400V 1A 30	
⚠		F101	0FS1601B51B	FUSE, SLOW BLOW	1600MA 250 V 5.2X20 CY/GL KS /	
		FH01	586-008B	HOLDER	FUSE CLIP TP SINSUNG	
		FH02	586-008B	HOLDER	FUSE CLIP TP SINSUNG	
⚠		IC101	4811R-0043H	BRACKET ASSEMBLY	KA1M0880B_HEAT SINK_NEW	
⚠		IC102	657-063A	SENSOR	LTV-817B, PHOTO COUPLER(LITEON)	
		IC103	0IKE431000A	IC, KEC	KIA431 3 PIN TP	
		IC103	0ISS431000A	IC, SAMSUNG ELECTRONICS	KA431AZ (LM431AZ)	
		IC151	4811R-0043G	BRACKET ASSEMBLY	378R05_HEATSINK	
		IC155	4811R-0043B	BRACKET ASSEMBLY	378R33_HEAT SINK	
		IC156	4811R-0043B	BRACKET ASSEMBLY	378R33_HEAT SINK	
		IC157	4811R-0049A	BRACKET ASSEMBLY	VCR LST-3500 78R09 HEATSINK	
		IC158	0IPMGFA031A	IC, POWER MANAGEMENT	KA278R12TSTU FAIRCHILD 4P TO-2	
⚠		L101	6200RLB007A	FILTER(CIRC), EMC	500UHX2 KWANGSUNG BULK DV-3500	
⚠		L102	6200RLB006A	FILTER(CIRC), EMI	UU1620 KWANGSUNG BULK	
		L121	633-088D	COIL, CHOKE	CHOCK, 20UH KWANGSUNG LEAD CU	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		L122	633-088D	COIL,CHOKE	CHOCK ,20UH KWANGSUNG LEAD CU	
		L123	6140RCC009A	COIL,RF	BAR CHOKE COIL 2 PIN 10 UHCCAR	
		L125	0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		R100	0RD1504H632	RESISTOR,FIXED CARBON FILM	1.5M OHM 1/2 W 5.00% MF10	
		R101	0RS1003K619	RESISTOR,FIXED METAL OXIDE FIL	100K OHM 2 W 5.00% TR	
		R103	0RS5602K619	RESISTOR,FIXED METAL OXIDE FIL	56K OHM 2 W 5.00% TR	
		R105	0RD0471F608	RESISTOR,FIXED CARBON FILM	4.7 OHM 1/6 W 5% TA26	
		R106	0RF0200F708	RESISTOR,VARIABLE[CARBON FILM]	0.2 OHM 1/6 W 10% TA26	
		R107	0RD1003F608	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R108	0RF0300F708	RESISTOR,VARIABLE[CARBON FILM]	0.3 OHM 1/6 W 10% TA26	
		R121	0RD2200F608	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R122	0RD2201F608	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R123	0RD1001F608	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R124	0RN3301F408	RESISTOR,FIXED METAL FILM	3.3K OHM 1/6 W 1% TA26	
		R125	0RN2701F408	RESISTOR,FIXED METAL FILM	2.7K OHM 1/6 W 1% TA26	
		R126	0RD1000F608	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R127	0RD4700F608	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	
		R128	0RD0102F608	RESISTOR,FIXED CARBON FILM	10 OHM 1/6 W 5% TA26	
		R129	0RD0102F608	RESISTOR,FIXED CARBON FILM	10 OHM 1/6 W 5% TA26	
		R130	0RD1003F608	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R131	0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R132	0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R133	0RD1003F608	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R151	0RD4701F608	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R154	0RD4701F608	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R155	0RD4701F608	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R156	0RD4701F608	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R157	0RD4701F608	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R158	0RD1001F608	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R159	0RD2201F608	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		T101	6170RNGW15H	TRANSFORMER,SMPS[COIL]	EER4242 SOOJUNG LST-3410Z	
		TH01	6322B62204A	THERMISTOR,PTC	NTPAN4R0LDRB0 MURATA 4.0OHM 15	
		V101	656-004C	VARISTOR,DRAWING	SVC681D-10A SAMHWA 4.0 CUT	
		ZD151	0DZ330009BF	DIODE,ZENER	GDZJ3.3B TP GRANDE DO34 0.5W 3	
		ZD151	0DZ332609FA	DIODE,ZENER	UZ-3.3BSB 26MM TP PYUNG CHANG	
		ZD151	0DZ330009CD	DIODE,ZENER	MTZJ3.3B TP ROHM-K DO34 0.5W 3	
		ZD151	0DZ337729AA	DIODE,ZENERS	MTZ3.3B,T-77(26MMTP) TP ROHM -	
		ZD152	0DZ330009AF	DIODE,ZENER	MTZ33B,TP,ROHM-K	
		ZD152	0DZ332609BA	DIODE,ZENER	UZ-33BSB 26MM TP PYUNG CHANG D	
*** PWB(PCB) ASSEMBLY , TOTAL GEMSTAR ***						
		A48	6871R-3231A	PWB(PCB) ASSEMBLY,TOTAL	LDT-3410Z GEMSTAR	
		AR100	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR101	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR102	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR300	0RR1500Q621	RESISTOR,VARIABLE[METAL GLAZE]	150 OHM 1/16 W 3216 5% R/TP 8	
		AR301	0RR1500Q621	RESISTOR,VARIABLE[METAL GLAZE]	150 OHM 1/16 W 3216 5% R/TP 8	
		AR302	0RR1500Q621	RESISTOR,VARIABLE[METAL GLAZE]	150 OHM 1/16 W 3216 5% R/TP 8	
		AR303	0RR1500Q621	RESISTOR,VARIABLE[METAL GLAZE]	150 OHM 1/16 W 3216 5% R/TP 8	
		AR304	0RR1500Q621	RESISTOR,VARIABLE[METAL GLAZE]	150 OHM 1/16 W 3216 5% R/TP 8	
		AR305	0RR1500Q621	RESISTOR,VARIABLE[METAL GLAZE]	150 OHM 1/16 W 3216 5% R/TP 8	
		AR306	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR307	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR308	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		AR309	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR310	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR311	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR312	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR313	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR314	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR315	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR316	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR317	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR318	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR319	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR320	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR321	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR322	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		B100	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B101	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		C105	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C106	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C107	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C108	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C109	0CH4150K412	CAPA,CHIP CERAMIC M/L T.C F/S	15P 50V J COG 1.6X0.8 R/TP	
⚠		C110	0CH4150K412	CAPA,CHIP CERAMIC M/L T.C F/S	15P 50V J COG 1.6X0.8 R/TP	
⚠		C111	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C112	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C113	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C114	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C115	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C116	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C117	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C118	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C119	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C120	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C121	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C122	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C123	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C124	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C127	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C128	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C131	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C132	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C133	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C134	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C135	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C136	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C137	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C138	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C139	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C140	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C141	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C142	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C143	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C144	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C155	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C156	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C157	0CC102CK41A	CAPACITOR, FIXED CERAMIC(TEMP.C	1000PF 1608 50V 5% R/TP NP0	
		C158	0CC102CK41A	CAPACITOR, FIXED CERAMIC(TEMP.C	1000PF 1608 50V 5% R/TP NP0	
		C159	0CC102CK41A	CAPACITOR, FIXED CERAMIC(TEMP.C	1000PF 1608 50V 5% R/TP NP0	
		C160	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C164	0CC102CK41A	CAPACITOR, FIXED CERAMIC(TEMP.C	1000PF 1608 50V 5% R/TP NP0	
		C165	0CH7106F621	CAPACITOR, CHIP[TANTALUM]	10UF 16V M 3528MM TP(-)	
		C166	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C168	0CH7106F621	CAPACITOR, CHIP[TANTALUM]	10UF 16V M 3528MM TP(-)	
		C169	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C171	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C172	0CH7106F621	CAPACITOR, CHIP[TANTALUM]	10UF 16V M 3528MM TP(-)	
		C173	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C174	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C175	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C176	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C177	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C178	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C179	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C196	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C199	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C200	0CH7106F621	CAPACITOR, CHIP[TANTALUM]	10UF 16V M 3528MM TP(-)	
		C201	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C202	0CH7106F621	CAPACITOR, CHIP[TANTALUM]	10UF 16V M 3528MM TP(-)	
		C203	0CH7106F621	CAPACITOR, CHIP[TANTALUM]	10UF 16V M 3528MM TP(-)	
		C204	0CH7106F621	CAPACITOR, CHIP[TANTALUM]	10UF 16V M 3528MM TP(-)	
		C206	0CC102CK41A	CAPACITOR, FIXED CERAMIC(TEMP.C	1000PF 1608 50V 5% R/TP NP0	
		C300	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C301	0CH1104K512	CAPACITOR, FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C302	0CH4180K412	CAPACITOR, CHIP[CERAMIC M/L TC	18P 50V J COG 1.6X0.8 R/TP	
		C303	0CH4100K412	CAPACITOR, CHIP[CERAMIC M/L TC	10PF 50V J NP0 1608 R/TP	
		D100	0DR050008AA	DIODE, RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D101	0DRFC00278A	DIODE, RECTIFIERS	MMBD4148 FAIR CHILD R/TP SOT23	
		D102	0DR050008AA	DIODE, RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
⚠		IC101	0IMCRTI023A	IC, MICRO CONTROLLER	XB-70 TEXAS INSTRUMENT 208 PQF	
⚠		IC102	0IMMRFU004A	IC, MEMORIES	MBM29DL323TE90TN FUJITSU 48 TS	
		IC103	0IMMRSS041B	IC, MEMORIES	K4S641632F-TL75 SAMSUNG ELECTR	
		IC103	0IMMRHY001E	IC, MEMORIES	HY57V641620HGT-7 HYUNDAI 54PIN	
		IC104	0IMMRSS041B	IC, MEMORIES	K4S641632F-TL75 SAMSUNG ELECTR	
		IC104	0IMMRHY001E	IC, MEMORIES	HY57V641620HGT-7 HYUNDAI 54PIN	
		IC107	0IPRPAD015A	IC, PERIPHERALS	ADV-7201 ANALOG DEVICE 64 LEAD	
		IC110	0IMCRMP005A	IC, MICRO CONTROLLER	PIC12F629T-I/SN MICRO CHIP TEC	
		IC112	0IPMGJ014A	IC, POWER MANAGEMENT	SC15651ST-1.8 SEMTECH 3P SOT-2	
		IC300	0ISTLFA054A	IC, STANDARD LOGIC	74LCX244MTCX FAIRCHILD 20P TSS	
		L100	0LCCE00004F	INDUCTOR, CHIP	22UH, CHIP2012 CERATECH R/TP	
⚠		L101	0LCCE00004F	INDUCTOR, CHIP	22UH, CHIP2012 CERATECH R/TP	
		LED100	0DLAU0108AC	LED	AUK SR1316 R/TP RED 8 MCD	
		Q100	0TR390409DA	TRANSISTOR	2N3904S NPN SOT-23 TP KEC	
		Q101	0TR390609BB	TRANSISTOR	2N3906S (MY-A112) TP KEC	
		R105	0RH1002C622	RESISTOR, METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R106	0RH1002C622	RESISTOR, METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R107	0RH1002C622	RESISTOR, METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R108	0RH1002C622	RESISTOR, METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R109	0RH1003C622	RESISTOR,METAL GLAZED(CHIP)	100K OHM 1 / 16 W 1608 5.00% D	
		R110	0RH1003C622	RESISTOR,METAL GLAZED(CHIP)	100K OHM 1 / 16 W 1608 5.00% D	
		R111	0RH1003C622	RESISTOR,METAL GLAZED(CHIP)	100K OHM 1 / 16 W 1608 5.00% D	
		R112	0RH1003C622	RESISTOR,METAL GLAZED(CHIP)	100K OHM 1 / 16 W 1608 5.00% D	
		R113	0RH0222C622	RESISTOR,METAL GLAZED(CHIP)	22 OHM 1 / 16 W 1608 5.00% D	
		R114	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R115	0RH0222C622	RESISTOR,METAL GLAZED(CHIP)	22 OHM 1 / 16 W 1608 5.00% D	
		R121	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R122	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R123	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R124	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R126	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R127	0RH1502C622	RESISTOR,METAL GLAZED(CHIP)	15K OHM 1 / 16 W 1608 5.00% D	
		R130	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R131	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R132	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R133	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R135	0RH1502C622	RESISTOR,METAL GLAZED(CHIP)	15K OHM 1 / 16 W 1608 5.00% D	
		R136	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R137	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R138	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R139	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R140	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R141	0RH1500C622	RESISTOR,METAL GLAZED(CHIP)	150 OHM 1 / 16 W 1608 5.00% D	
		R142	0RH2202C622	RESISTOR,METAL GLAZED(CHIP)	22K OHM 1 / 16 W 1608 5.00% D	
		R143	0RH2202C622	RESISTOR,METAL GLAZED(CHIP)	22K OHM 1 / 16 W 1608 5.00% D	
		R144	0RH1502C622	RESISTOR,METAL GLAZED(CHIP)	15K OHM 1 / 16 W 1608 5.00% D	
		R145	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R146	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R161	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R166	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R170	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R175	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R180	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R181	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R200	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R201	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R202	0RH0222C622	RESISTOR,METAL GLAZED(CHIP)	22 OHM 1 / 16 W 1608 5.00% D	
		R203	0RH0472C622	RESISTOR,METAL GLAZED(CHIP)	47 OHM 1 / 16 W 1608 5.00% D	
		R205	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R300	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R301	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		X100	6212AB210E	RESONATOR,CRYSTAL	HC-49/S SMD CSC(SSANGTAL) 12MH	
*** BOARD ASSEMBLY(MAIN) ***						
		A46	6871R-3230A	PWB(PCB) ASSEMBLY,TOTAL	LST-3410Z MAIN PWB ASSY	
		AR100	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR101	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR102	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR103	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR104	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR105	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR106	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR107	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	



S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		AR108	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR109	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR110	0RRZVTA001J	RESISTOR,DRAWING	4.7K OHM 1 / 16 W 3216 5% R/TP	
		AR111	0RRZVTA001J	RESISTOR,DRAWING	4.7K OHM 1 / 16 W 3216 5% R/TP	
		AR112	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR113	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR114	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR115	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR116	0RRZVTA001S	RESISTOR,DRAWING	3.3K OHM 1 / 16 W 3216 5% R/TP	
		AR117	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR118	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR119	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR120	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR121	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR122	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR125	0RRZVTA001J	RESISTOR,DRAWING	4.7K OHM 1 / 16 W 3216 5% R/TP	
		AR126	0RRZVTA001J	RESISTOR,DRAWING	4.7K OHM 1 / 16 W 3216 5% R/TP	
		AR127	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR128	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR129	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR130	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR131	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR132	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR133	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR134	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		AR135	0RRZVTA001F	RESISTOR,DRAWING	33 OHM 1 / 16 W 3216 5% R/TP 8	
		B100	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B101	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B102	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B103	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B104	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B105	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B106	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B107	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B108	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B109	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B110	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B111	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B113	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B117	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B118	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B120	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B121	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B122	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B202	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B203	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B205	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		B207	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
		C100	0CH8335K611	CAPACITOR,FIXED ELECTROLYTIC	3.3UF 50V 20% 85STD (CYL) R/TP	
⚠		C101	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
⚠		C102	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C103	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C104	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C105	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C106	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C107	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C108	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C109	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C110	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C111	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C112	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C113	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C114	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C115	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C116	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C117	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C118	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C119	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C120	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C121	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C122	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C123	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C124	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C125	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C126	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C127	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C128	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C129	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C130	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C131	0CH1225F946	CAPACITOR, FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 2012	
		C132	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C133	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C134	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C135	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C136	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C137	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C138	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C139	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C140	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C141	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C142	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C143	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C144	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C145	0CH1683K516	CAPACITOR, FIXED CERAMIC(Temp.c	0.068UF 50V 10% B(5YP) 2012 R/	
		C146	0CC100CK41A	CAPACITOR, FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C147	0CC100CK41A	CAPACITOR, FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C148	0CC100CK41A	CAPACITOR, FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C149	0CC100CK41A	CAPACITOR, FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C150	0CC100CK41A	CAPACITOR, FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C151	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C152	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C153	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C154	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C155	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C156	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C157	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	



[illegible]

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C264	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C265	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C266	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C267	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C268	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C269	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C270	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C271	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C272	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C273	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C274	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C275	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C276	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C277	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C278	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C279	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C280	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C281	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C282	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C283	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C284	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C285	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C286	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C287	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C288	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C289	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C290	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C291	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C292	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C296	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C297	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C298	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C299	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C300	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C303	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C304	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C306	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C307	0CH8335K611	CAPACITOR, FIXED ELECTROLYTIC	3.3UF 50V 20% 85STD (CYL) R/TP	
		C308	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C309	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C310	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C311	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C312	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C313	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C314	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C315	0CH1821K562	CAPACITOR, FIXED CERAMIC(Temp.c	820PF 50V 10% X7R(X) 1608 R/TP	
		C316	0CH1821K562	CAPACITOR, FIXED CERAMIC(Temp.c	820PF 50V 10% X7R(X) 1608 R/TP	
		C317	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C318	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C319	0CH4020K012	CAPACITOR, FIXED CERAMIC(High d	2PF 50V 0.25 pF NP0 1608 R/TP	
		C320	0CH4020K012	CAPACITOR, FIXED CERAMIC(High d	2PF 50V 0.25 pF NP0 1608 R/TP	
		C321	0CH1103K562	CAPACITOR, FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C322	0CH4560K412	CAPA, CHIP CERAMIC M/L T.C F/S	56P 50V J COG 1.6X0.8 R/TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C323	0CH4560K412	CAPA,CHIP CERAMIC M/L T.C F/S	56P 50V J COG 1.6X0.8 R/TP	
		C324	0CC102CK41A	CAPACITOR,FIXED CERAMIC(TEMP.C	1000PF 1608 50V 5% R/TP NP0	
		C325	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C326	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C327	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C328	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C329	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C330	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C331	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C332	0CH8335K611	CAPACITOR,FIXED ELECTROLYTIC	3.3UF 50V 20% 85STD (CYL) R/TP	
		C333	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C334	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C335	0CH1474K562	CAPACITOR,FIXED CERAMIC(TEMP.C	470000PF 1608 50V 10% - R/TP	
		C336	0CH1474K562	CAPACITOR,FIXED CERAMIC(TEMP.C	470000PF 1608 50V 10% - R/TP	
		C337	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C338	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C339	0CE107SF6DC	CAPACITOR,FIXED ELECTROLYTIC	100UF MVG 16V 20% SMD R/TP	
		C340	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C341	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C342	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C343	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C344	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C345	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C346	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C347	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C348	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C349	0CH1473K562	CAPACITOR,CHIP[CERAMIC M/L HD	47000PF 50V K X7R(X) 1608 R/TP	
		C350	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C351	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C352	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C353	0CK4R7CF56A	CAPACITOR,FIXED CERAMIC(HIGH D	4.7PF 1608 16V 10% R/TP X7R	
		C354	0CH4181K412	CAPACITOR,CHIP[CERAMIC M/L TC	180P 50V J COG 1.6X0.8 R/TP	
		C355	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C356	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C357	0CK4R7CF56A	CAPACITOR,FIXED CERAMIC(HIGH D	4.7PF 1608 16V 10% R/TP X7R	
		C358	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C359	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C360	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C361	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C362	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C363	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C364	0CK684DF56A	CAPACITOR,FIXED CERAMIC(HIGH D	0.68UF 2012 16V 10% R/TP X7R	
		C365	0CK684DF56A	CAPACITOR,FIXED CERAMIC(HIGH D	0.68UF 2012 16V 10% R/TP X7R	
		C366	0CK684DF56A	CAPACITOR,FIXED CERAMIC(HIGH D	0.68UF 2012 16V 10% R/TP X7R	
		C368	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C369	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C370	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C371	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C376	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C377	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C378	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C379	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C380	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	



S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C437	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C438	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C439	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C440	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C441	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C442	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C443	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C444	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C445	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C446	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C447	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C448	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C449	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C450	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C451	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C452	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C453	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C454	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C455	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C456	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C457	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C458	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C459	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C460	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C461	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C462	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C463	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C464	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C465	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C466	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C467	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C468	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C469	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C470	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C471	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C472	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C473	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C474	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C475	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C476	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C477	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C478	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C479	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C480	0CE226VK6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MV 50V 20% SMD R/TP(SMD)	
		C483	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C484	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C486	0CH4470K412	CAPA,CHIP CERAMIC M/L T.C F/S	47P 50V J COG 1.6X0.8 R/TP	
		C487	0CH4470K412	CAPA,CHIP CERAMIC M/L T.C F/S	47P 50V J COG 1.6X0.8 R/TP	
		C488	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C489	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C490	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C493	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C494	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	



S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C495	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C496	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C497	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C498	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C499	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C503	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C504	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C533	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C535	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C539	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C540	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C541	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C542	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C543	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C544	0CE476SF6DC	CAPACITOR, FIXED ELECTROLYTIC	47UF MVG 16V 20% SMD R/TP	
		C545	0CE476SF6DC	CAPACITOR, FIXED ELECTROLYTIC	47UF MVG 16V 20% SMD R/TP	
		C546	0CE476SF6DC	CAPACITOR, FIXED ELECTROLYTIC	47UF MVG 16V 20% SMD R/TP	
		C547	0CH8105K611	CAPACITOR, FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C548	0CH8105K611	CAPACITOR, FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C549	0CE227VF6DC	CAPACITOR, FIXED ELECTROLYTIC	220UF MV 16V 20% R/TP(SMD) SMD	
		C550	0CE474VK6DC	CAPACITOR, FIXED ELECTROLYTIC	0.47UF MV 50V 20% R/TP(SMD) SM	
		C551	0CH8105K611	CAPACITOR, FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C552	0CH8105K611	CAPACITOR, FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C553	0CH8105K611	CAPACITOR, FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C555	0CE107SF6DC	CAPACITOR, FIXED ELECTROLYTIC	100UF MVG 16V 20% SMD R/TP	
		C556	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C557	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C558	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C559	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C561	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C562	0CE227VF6DC	CAPACITOR, FIXED ELECTROLYTIC	220UF MV 16V 20% R/TP(SMD) SMD	
		C563	0CE227VF6DC	CAPACITOR, FIXED ELECTROLYTIC	220UF MV 16V 20% R/TP(SMD) SMD	
		C564	0CE227VF6DC	CAPACITOR, FIXED ELECTROLYTIC	220UF MV 16V 20% R/TP(SMD) SMD	
		C565	0CE474VK6DC	CAPACITOR, FIXED ELECTROLYTIC	0.47UF MV 50V 20% R/TP(SMD) SM	
		C566	0CH4221K412	CAPACITOR, CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
		C567	0CE477VD6DC	CAPACITOR, FIXED ELECTROLYTIC	470UF MV 10V 20% R/TP(SMD) SMD	
		C568	0CE477VD6DC	CAPACITOR, FIXED ELECTROLYTIC	470UF MV 10V 20% R/TP(SMD) SMD	
		C569	0CE477VD6DC	CAPACITOR, FIXED ELECTROLYTIC	470UF MV 10V 20% R/TP(SMD) SMD	
		C570	0CE477VD6DC	CAPACITOR, FIXED ELECTROLYTIC	470UF MV 10V 20% R/TP(SMD) SMD	
		C571	0CE477VD6DC	CAPACITOR, FIXED ELECTROLYTIC	470UF MV 10V 20% R/TP(SMD) SMD	
		C572	0CE477VD6DC	CAPACITOR, FIXED ELECTROLYTIC	470UF MV 10V 20% R/TP(SMD) SMD	
		C573	0CH4221K412	CAPACITOR, CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
		C574	0CH4470K412	CAPA, CHIP CERAMIC M/L T.C F/S	47P 50V J COG 1.6X0.8 R/TP	
		C575	0CH4470K412	CAPA, CHIP CERAMIC M/L T.C F/S	47P 50V J COG 1.6X0.8 R/TP	
		C577	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C578	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C579	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C580	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C581	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C582	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C583	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C584	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C585	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C586	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C587	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C588	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C589	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C590	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C591	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C592	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C593	0CH4180K412	CAPACITOR, CHIP[CERAMIC M/L TC	18P 50V J COG 1.6X0.8 R/TP	
		C594	0CH4180K412	CAPACITOR, CHIP[CERAMIC M/L TC	18P 50V J COG 1.6X0.8 R/TP	
		C595	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C596	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C597	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C598	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C599	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C600	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C601	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C602	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C603	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C604	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C605	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C606	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C607	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C608	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C609	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C610	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C611	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C612	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C613	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C614	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C615	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C616	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C617	0CH4271K412	CAPACITOR, FIXED CERAMIC(HIGH D	270PF 50V 5% NP0 1608 R/TP	
		C618	0CH4271K412	CAPACITOR, FIXED CERAMIC(HIGH D	270PF 50V 5% NP0 1608 R/TP	
		C619	0CH1105D942	CAPACITOR, CHIP[CERAMIC M/L HD	1UF 10V Z Y5V(F) 1508 R/TP	
		C620	0CH1105D942	CAPACITOR, CHIP[CERAMIC M/L HD	1UF 10V Z Y5V(F) 1508 R/TP	
		C621	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C622	0CH4200K412	CAPACITOR, FIXED CERAMIC(High d	20PF 50V 5% NP0 1608 R/TP	
		C623	0CE226SF6DC	CAPACITOR, FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C624	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C625	0CH4200K412	CAPACITOR, FIXED CERAMIC(High d	20PF 50V 5% NP0 1608 R/TP	
		C626	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C627	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C628	0CH4200K412	CAPACITOR, FIXED CERAMIC(High d	20PF 50V 5% NP0 1608 R/TP	
		C629	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C630	0CE107SF6DC	CAPACITOR, FIXED ELECTROLYTIC	100UF MVG 16V 20% SMD R/TP	
		C631	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C632	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C633	0CE107SF6DC	CAPACITOR, FIXED ELECTROLYTIC	100UF MVG 16V 20% SMD R/TP	
		C634	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C635	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C636	0CH8106F611	CAPACITOR, CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C637	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C638	0CH1104K562	CAPACITOR, FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C639	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C640	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C641	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C642	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C643	0CE107VK6DC	CAPACITOR,FIXED ELECTROLYTIC	100UF MV 50V 20% SMD R/TP(SMD)	
		C644	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C645	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C646	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C647	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C648	0CE107SF6DC	CAPACITOR,FIXED ELECTROLYTIC	100UF MVG 16V 20% SMD R/TP	
		C649	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C650	0CE107SF6DC	CAPACITOR,FIXED ELECTROLYTIC	100UF MVG 16V 20% SMD R/TP	
		C651	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C656	0CH4121K412	CAPACITOR,CHIP[CERAMIC M/L TC	120P 50V J COG 1.6X0.8 R/TP	
		C657	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C658	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C700	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C701	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C702	0CH1474K562	CAPACITOR,FIXED CERAMIC(TEMP.C	470000PF 1608 50V 10% - R/TP	
		C703	0CH1474K562	CAPACITOR,FIXED CERAMIC(TEMP.C	470000PF 1608 50V 10% - R/TP	
		C704	0CH1821K562	CAPACITOR,FIXED CERAMIC(Temp.c	820PF 50V 10% X7R(X) 1608 R/TP	
		C705	0CH1821K562	CAPACITOR,FIXED CERAMIC(Temp.c	820PF 50V 10% X7R(X) 1608 R/TP	
		C706	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C707	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C708	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C709	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C710	0CE107SF6DC	CAPACITOR,FIXED ELECTROLYTIC	100UF MVG 16V 20% SMD R/TP	
		C711	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C712	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C713	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C714	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C718	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C719	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C720	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C721	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C722	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C723	0CE226SF6DC	CAPACITOR,FIXED ELECTROLYTIC	22UF MVG 16V 20% SMD R/TP	
		C724	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C727	0CH4271K412	CAPACITOR,FIXED CERAMIC(HIGH D	270PF 50V 5% NP0 1608 R/TP	
		C728	0CH8105K611	CAPACITOR,FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C729	0CH4820K412	CHIP CAPA CERAMIC M/L T.C F/S	82P 50V J COG 1.6X0.8 R/TP	
		C730	0CH4820K412	CHIP CAPA CERAMIC M/L T.C F/S	82P 50V J COG 1.6X0.8 R/TP	
		C731	0CH4820K412	CHIP CAPA CERAMIC M/L T.C F/S	82P 50V J COG 1.6X0.8 R/TP	
		C732	0CH4820K412	CHIP CAPA CERAMIC M/L T.C F/S	82P 50V J COG 1.6X0.8 R/TP	
		C733	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C734	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C735	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C736	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C737	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C738	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C739	0CH4270K412	CAPACITOR,CHIP[CERAMIC M/L TC	27PF 50V J NP0 1608 R/TP	
		C740	0CC100CK41A	CAPACITOR,FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C741	0CH4270K412	CAPACITOR,CHIP[CERAMIC M/L TC	27PF 50V J NP0 1608 R/TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		C742	0CH4270K412	CAPACITOR,CHIP[CERAMIC M/L TC	27PF 50V J NP0 1608 R/TP	
		C743	0CH4270K412	CAPACITOR,CHIP[CERAMIC M/L TC	27PF 50V J NP0 1608 R/TP	
		C744	0CH4270K412	CAPACITOR,CHIP[CERAMIC M/L TC	27PF 50V J NP0 1608 R/TP	
		C745	0CC100CK41A	CAPACITOR,FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C746	0CC100CK41A	CAPACITOR,FIXED CERAMIC(Temp.c	10PF 1608 50V 5% R/TP NP0	
		C747	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C748	0CH8106F611	CAPACITOR,CHIP[AL. ELECTROLYTI	10UF 16V M 85STD(CYL) R/TP	
		C749	0CH1104K512	CAPACITOR,FIXED CERAMIC(Temp.c	0.1UF 50V 10% B(5YP) 1608 R/TP	
		C750	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C751	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C752	0CH8105K611	CAPACITOR,FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C753	0CH8105K611	CAPACITOR,FIXED ELECTROLYTIC	1UF 50V 20% 85STD (CYL) R/TP	
		C754	0CH1272K562	CAPACITOR,FIXED CERAMIC(Temp.c	2700PF 50V 10% X7R(X) 1608 R/T	
		C755	0CH1272K562	CAPACITOR,FIXED CERAMIC(Temp.c	2700PF 50V 10% X7R(X) 1608 R/T	
		C760	0CH4561K412	CAPACITOR,FIXED CERAMIC(High d	560PF 50V 5% NP0 1608 R/TP	
		C761	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD	1UF 10V Z Y5V(F) 1508 R/TP	
		C763	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C764	0CH4680K412	CAPACITOR,FIXED CERAMIC(HIGH D	68PF 50V 5% NP0 1608 R/TP	
		C766	0CH4680K412	CAPACITOR,FIXED CERAMIC(HIGH D	68PF 50V 5% NP0 1608 R/TP	
		C767	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S	100P 50V J COG 1.6X0.8 R/TP	
		C768	0CH4680K412	CAPACITOR,FIXED CERAMIC(HIGH D	68PF 50V 5% NP0 1608 R/TP	
		C950	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C951	0CH1104K562	CAPACITOR,FIXED CERAMIC(TEMP.C	0.1UF 50V 10% X7R(X) 1608 R/TP	
		C952	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		D100	0DTSE00018A	DIODE,DETACTION	SRV05-4TC SEMTECH R/TP SOT23-6	
		D101	0DTSE00018A	DIODE,DETACTION	SRV05-4TC SEMTECH R/TP SOT23-6	
		D102	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D103	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D104	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D105	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D106	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D107	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D108	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D109	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D110	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D111	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D112	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D113	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D114	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D115	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D116	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D117	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D118	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D119	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D120	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D121	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D122	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D123	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D124	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D125	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D126	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D127	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D128	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		D129	0DTSE00018A	DIODE,DETACTION	SRV05-4TC SEMTECH R/TP SOT23-6	
		D130	0DTSE00018A	DIODE,DETACTION	SRV05-4TC SEMTECH R/TP SOT23-6	
		D131	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D132	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D134	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D135	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D137	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D138	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D139	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D140	0DRSE00028A	DIODE,RECTIFIERS	SLUV2.8 SEMTECH R/TP SOT23 2.8	
		D141	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D142	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D143	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D144	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D145	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D146	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D147	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D148	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D149	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D150	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D151	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
		D152	0DR050008AA	DIODE,RECTIFIERS	SD05.TC R/TP SEMTECH SOD323 5V	
△		F101	6200C000012	FILTER(CIRC),BAND PASS	TH355LSK-K5218 KOREA TOKO BK 4	
		F102	6200C000012	FILTER(CIRC),BAND PASS	TH355LSK-K5218 KOREA TOKO BK 4	
		F103	6200C000012	FILTER(CIRC),BAND PASS	TH355LSK-K5218 KOREA TOKO BK 4	
		F104	6200C000017	FILTER(CIRC),BAND PASS	LOW PASS FILTER 38MHZ TOKO R/T	
		F105	6200C000017	FILTER(CIRC),BAND PASS	LOW PASS FILTER 38MHZ TOKO R/T	
		F106	6200C000017	FILTER(CIRC),BAND PASS	LOW PASS FILTER 38MHZ TOKO R/T	
		F107	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F108	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F109	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F110	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F111	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F112	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F113	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F114	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F115	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F116	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F117	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F118	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F119	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F120	6200VJT006A	FILTER(CIRC),EMC	STC222D NIIGATA 50VOLT 4A 2200	
		F121	6200VJT006A	FILTER(CIRC),EMC	STC222D NIIGATA 50VOLT 4A 2200	
		F122	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F123	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F124	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F125	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F126	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F127	6140R-C010A	COIL,TRAP FM	CHOKE 944CM-0004=P3 TOKO EMI F	
		F128	6140R-C010A	COIL,TRAP FM	CHOKE 944CM-0004=P3 TOKO EMI F	
		F130	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F131	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F132	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		F133	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F134	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F135	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F136	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F137	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F138	6200JB8011P	FILTER(CIRC),EMC	BMS400-EMI NIIGATA TP	
		F139	6200JB8009L	FILTER(CIRC),EMC	EMC BMK800 50V 0.2A NIIGATA R/	
		F140	6200JB8009L	FILTER(CIRC),EMC	EMC BMK800 50V 0.2A NIIGATA R/	
		F141	6200JB8009L	FILTER(CIRC),EMC	EMC BMK800 50V 0.2A NIIGATA R/	
		F142	6200JB8009L	FILTER(CIRC),EMC	EMC BMK800 50V 0.2A NIIGATA R/	
		F143	6200JB8009L	FILTER(CIRC),EMC	EMC BMK800 50V 0.2A NIIGATA R/	
		IC100	0IMCRBM002A	IC,MICRO CONTROLLER	IBM25PPC405GP-3BE200C IBM 456	
△		IC101	0IPMG51003A	IC,POWER MANAGEMENT	SC1565IST-2.5TR SEMTECH 3PIN S	
△		IC102	0IKE702900F	IC,KEC	KIA7029AF SOT-89 TP IC,RESET -	
		IC103	0IPRPHY006A	IC,PERIPHERALS	CY2305SC-1HT CYPRESS 8PIN SOIC	
		IC104	0ISTLPH026A	IC,STANDARD LOGIC	74LVC14APW PHILIPS 14PIN TSSOP	
		IC105	0ISTLAT009A	IC,STANDARD LOGIC	EPM7256AE 144-10 ALTERA TQFP 1	
		IC106	0IMMRSS006D	IC,MEMORIES	K4S281632E-TC75 SAMSUNG ELECTR	
		IC106	0IMMRHY015B	IC,MEMORIES	HY57V281620HCT-H HYUNDAI 54P,T	
		IC107	0IMMRSS006D	IC,MEMORIES	K4S281632E-TC75 SAMSUNG ELECTR	
		IC107	0IMMRHY015B	IC,MEMORIES	HY57V281620HCT-H HYUNDAI 54P,T	
		IC109	0IMMRFU004A	IC,MEMORIES	MBM29DL323TE90TN FUJITSU 48 TS	
		IC110	0IMMRFU004A	IC,MEMORIES	MBM29DL323TE90TN FUJITSU 48 TS	
		IC111	0IPH858400A	IC,PHILIPS	PCF8584T 20P,SOP TP IIC BUS CO	
		IC112	0IMP242560A	IC,MICRO CHIP TECHNOLOGY	24LC256-I/SM 8P,SOP TP 256K II	
		IC113	0ISTLFA046A	IC,STANDARD LOGIC	74LCX245MTCX FAIRCHILD 20P TSO	
		IC114	0IPMG5J014A	IC,POWER MANAGEMENT	SC15651ST-1.8 SEMTECH 3P SOT-2	
		IC115	0ICTMLG009A	IC,CUSTOMIZED	LGDT1102 HD2 LG IC SBGA-432PI	
		IC116	0IMMRSS041B	IC,MEMORIES	K4S641632F-TL75 SAMSUNG ELECTR	
		IC116	0IMMRB004A	IC,MEMORIES	M12L64164A-7T ELITE MEMORY TEC	
		IC117	0IMMRSS041B	IC,MEMORIES	K4S641632F-TL75 SAMSUNG ELECTR	
		IC117	0IMMRB004A	IC,MEMORIES	M12L64164A-7T ELITE MEMORY TEC	
		IC118	0IMMRSS041B	IC,MEMORIES	K4S641632F-TL75 SAMSUNG ELECTR	
		IC118	0IMMRB004A	IC,MEMORIES	M12L64164A-7T ELITE MEMORY TEC	
		IC119	0IMMRSS041B	IC,MEMORIES	K4S641632F-TL75 SAMSUNG ELECTR	
		IC119	0IMMRB004A	IC,MEMORIES	M12L64164A-7T ELITE MEMORY TEC	
		IC120	0IPRPHY006A	IC,PERIPHERALS	CY2305SC-1HT CYPRESS 8PIN SOIC	
		IC122	0IKE704200J	IC,KEC	KIA7042AF SOT-89 TP 4.2V VOLTA	
		IC123	0IPMGKE016A	IC,POWER MANAGEMENT	KIA78DL08F KEC 3P DPAK(SMD) R/	
		IC124	0ILNRMN007A	IC,LINEAR	MSP4450G MICRONAS 64 PMQFP TRA	
		IC125	0IJR458000B	IC,JRC	NJM4580M 8,DMP8 TP OP AMP 2K/R	
		IC126	0IPRPS2002A	IC,PERIPHERALS	SIL170 SILICON MAGIC 64 TQFP T	
		IC127	0ILNRMN005B	IC,LINEAR	VPX3226F MICRONAS 44PIN PMQFP	
		IC128	0IPRPPH012A	IC,PERIPHERALS	P82B715TD PHILIPS 8 SOP R/TP I	
		IC129	0ICTMLG011A	IC,CUSTOMIZED	LGDT1303 LG IC 324PIN BGA TRAY	
		IC130	0IPMG51003A	IC,POWER MANAGEMENT	SC1565IST-2.5TR SEMTECH 3PIN S	
		IC131	0IMMRSS041B	IC,MEMORIES	K4S641632F-TL75 SAMSUNG ELECTR	
		IC131	0IMMRB004A	IC,MEMORIES	M12L64164A-7T ELITE MEMORY TEC	
		IC132	0ILNRBR001A	IC,LINEAR	BCM7040 BROADCOM 176 LQFP TRAY	
		IC133	0IMMRSS037C	IC,MEMORIES	K4S643232F-TC60 SAMSUNG ELECTR	
		IC133	0IMMRHY025A	IC,MEMORIES	HY57V643220CT-7 HYUNDAI 86P TS	
		IC134	0IPMG5J014A	IC,POWER MANAGEMENT	SC15651ST-1.8 SEMTECH 3P SOT-2	
		IC135	0IPRRL001A	IC,PERIPHERALS	ARS0303D ARALION 144-LQFP TRAY	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		IC137	0IPMGJ014A	IC,POWER MANAGEMENT	SC15651ST-1.8 SEMTECH 3P SOT-2	
		IC140	0IPRPTI015A	IC,PERIPHERALS	MAX232DR TEXAS INSTRUMENT 16PI	
		IC142	0IPRPTK001A	IC,PERIPHERALS	TK15420M TOKO 8 SOP R/TP VIDEO	
		IC143	0IPRPAD005A	IC,PERIPHERALS	AD8013AR-14 ANALOG DEVICE 14 S	
		IC144	0IPRPAD005A	IC,PERIPHERALS	AD8013AR-14 ANALOG DEVICE 14 S	
		IC145	0ISTLAT009A	IC,STANDARD LOGIC	EPM7256AE 144-10 ALTERA TQFP 1	
		IC146	0IPRPTI029A	IC,PERIPHERALS	TSB43CA43A TEXAS INSTRUMENT S-	
		IC147	4811R-0042N	BRACKET ASSEMBLY	VCR LST-3410A FA 78R05	
		IC148	0IMCRMIO14A	IC,MICRO CONTROLLER	M37272E8SP MITSUBISHI SK-011T	
		IC149	0IKE704200J	IC,KEC	KIA7042AF SOT-89 TP 4.2V VOLTA	
		IC150	4811R-0042Q	BRACKET ASSEMBLY	VCR LST-3410A FAIRCHILD KA278R	
		IC151	0IPRPPH019A	IC,PERIPHERALS	PCA9515D PHILIPS 8 PIN PLASTIC	
		IC153	0ISTLFA054A	IC,STANDARD LOGIC	74LCX244MTCX FAIRCHILD 20P TSS	
		IC155	0IJR458000B	IC,JRC	NJM4580M 8,DMP8 TP OP AMP 2K/R	
		IC156	0IPRPAD005A	IC,PERIPHERALS	AD8013AR-14 ANALOG DEVICE 14 S	
		IC157	0IPRPAD005A	IC,PERIPHERALS	AD8013AR-14 ANALOG DEVICE 14 S	
		IC158	0ICB533100A	IC,CRYSTAL SEMICONDUCTOR	CS5331A-KSR 8SOIC TP ADC -	
		IC159	0IPH745400A	IC,PHILIPS	74HC540 20P,SOP TP OCTAL BUFEE	
		IC160	0IPRPPH019A	IC,PERIPHERALS	PCA9515D PHILIPS 8 PIN PLASTIC	
		IC161	0IPRPCY004A	IC,PERIPHERALS	CY24206ZC-4T CYPRESS 16PIN TSS	
		J103	6612K00003A	JACK,FIBER OPTIC	PLT131/T5/6 EVERLIGHT PUSH TYP	
		J104	6630R-SY08X	CONNECTOR(CIRC),DRAWING	DV2R024NKA JAE 24P SPECIAL DVI	
		J109	6630GZ00224	CONNECTOR (CIRC),D-SUB	3340-09S/15S-AFR-GO-T POWERNET	
		J111	6612BBBHNSA	JACK,DIN	SCN556S4GTTB000 S-VIDEO HYUSUN	
		J119	6612J00034A	JACK,RCA	RCA-619A-01-01G YUQIU LST-3410	
		J120	6612JH003DA	JACK,RCA	RCA-907A-01G YUQIU DIRECTV	
		L100	0LCCE00004P	INDUCTOR,CHIP	3.3UH, CHIP2012 CERATECH R/TP	
⚠		L101	6200HJC106A	FILTER(CIRC),EMC	HH-1M2012-121JT CERATECH TP 2	
⚠		L102	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L103	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L104	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L105	0LCCE00004E	INDUCTOR,CHIP	FI-C2012-103KJT (10UH) CERATEC	
		L106	0LCCE00004E	INDUCTOR,CHIP	FI-C2012-103KJT (10UH) CERATEC	
		L107	0LCCE00004E	INDUCTOR,CHIP	FI-C2012-103KJT (10UH) CERATEC	
		L108	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L109	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L110	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L111	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L112	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L113	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L114	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L115	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L116	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L119	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L120	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L121	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L122	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L125	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L126	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	
		L127	0LCCE00004F	INDUCTOR,CHIP	22UH, CHIP2012 CERATECH R/TP	
		L128	0LCCE00004F	INDUCTOR,CHIP	22UH, CHIP2012 CERATECH R/TP	
		L129	0LCCE00004F	INDUCTOR,CHIP	22UH, CHIP2012 CERATECH R/TP	
		L130	0LCCE00004D	INDUCTOR,CHIP	6.8UH, CHIP2012 CERATECH R/TP	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		LED100	0DL210008GA	LED	SML-210MT R/TP ROHM GREEN 16	
		LED101	0DL210009LA	LED	SML-210VT TP ROHM RED .	
		LED102	0DL210009LA	LED	SML-210VT TP ROHM RED .	
		LED105	0DL210009LA	LED	SML-210VT TP ROHM RED .	
		Q100	0TR830009BA	TRANSISTOR,BIPOLARS	BSS83 TP PHILIPS NON N-CHANNEL	
		Q101	0TR830009BA	TRANSISTOR,BIPOLARS	BSS83 TP PHILIPS NON N-CHANNEL	
		Q102	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q103	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q104	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q105	0TR102009AC	TRANSISTOR	KRA102S TP KEC SOT-23	
		Q106	0TR387509AB	TRANSISTOR,BIPOLARS	KTC3875S-Y-T1(ALY) KEC TP TO9	
		Q107	0TR387509AB	TRANSISTOR,BIPOLARS	KTC3875S-Y-T1(ALY) KEC TP TO9	
		Q108	0TR387509AB	TRANSISTOR,BIPOLARS	KTC3875S-Y-T1(ALY) KEC TP TO9	
		Q110	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q111	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q112	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q113	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q114	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q115	0TR387509AB	TRANSISTOR,BIPOLARS	KTC3875S-Y-T1(ALY) KEC TP TO9	
		Q117	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q118	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q119	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q120	0TR102009AA	TRANSISTOR	CHIP KRC102S-T1(NB)10-10 KEC	
		Q121	0TR102009AA	TRANSISTOR	CHIP KRC102S-T1(NB)10-10 KEC	
		Q122	0TR102009AA	TRANSISTOR	CHIP KRC102S-T1(NB)10-10 KEC	
		Q126	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q127	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q128	0TR102009AC	TRANSISTOR	KRA102S TP KEC SOT-23	
		Q129	0TR387509AB	TRANSISTOR,BIPOLARS	KTC3875S-Y-T1(ALY) KEC TP TO9	
		Q130	0TR387509AB	TRANSISTOR,BIPOLARS	KTC3875S-Y-T1(ALY) KEC TP TO9	
		Q131	0TR150409AC	TRANSISTOR	KTA1504-GR-T1(ASG) CHIP KEC	
		Q132	0TRKE80039A	TRANSISTOR,BIPOLARS	KRA225S-T1(PU) KEC R/TP SOT23	
		Q135	0TR102009AC	TRANSISTOR	KRA102S TP KEC SOT-23	
		Q136	0TR102009AC	TRANSISTOR	KRA102S TP KEC SOT-23	
		R100	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R101	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R102	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R103	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R104	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R105	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R106	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R107	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R108	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R109	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R110	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R111	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R112	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R113	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R114	0RH3301C622	RESISTOR,METAL GLAZED(CHIP)	3.3K OHM 1 / 16 W 1608 5.00% D	
		R115	0RH3301C622	RESISTOR,METAL GLAZED(CHIP)	3.3K OHM 1 / 16 W 1608 5.00% D	
		R116	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R117	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R118	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	



S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R121	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R122	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R125	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R126	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R129	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R130	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R133	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R134	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R137	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R138	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R148	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R149	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R150	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R151	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R154	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R155	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R158	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R159	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R161	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R162	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R164	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R165	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R167	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R168	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R169	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R171	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R172	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R175	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R176	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R177	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R178	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R179	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R180	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R181	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R182	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R183	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R184	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R185	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R186	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R187	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R189	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R190	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R191	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R195	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R196	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R197	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R198	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R199	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R200	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R201	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R202	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R203	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R204	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R205	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R206	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R208	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R209	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R210	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R211	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R212	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R213	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R214	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R215	0RH3301C622	RESISTOR,METAL GLAZED(CHIP)	3.3K OHM 1 / 16 W 1608 5.00% D	
		R216	0RH3900C622	RESISTOR,METAL GLAZED(CHIP)	390 OHM 1 / 16 W 1608 5.00% D	
		R217	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R218	0RH3301C622	RESISTOR,METAL GLAZED(CHIP)	3.3K OHM 1 / 16 W 1608 5.00% D	
		R219	0RH3900C622	RESISTOR,METAL GLAZED(CHIP)	390 OHM 1 / 16 W 1608 5.00% D	
		R220	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R221	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R222	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R223	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R224	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R225	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R226	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R227	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R228	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R229	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R230	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R231	0RH1302C622	RESISTOR,METAL GLAZED(CHIP)	13K OHM 1 / 16 W 1608 5.00% D	
		R232	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R234	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R235	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R236	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R239	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R240	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R241	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R246	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R247	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R248	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R249	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R250	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R251	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R252	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R254	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R255	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R256	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R258	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R259	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R263	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R264	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R265	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R268	0RH5601C622	RESISTOR,METAL GLAZED(CHIP)	5.6K OHM 1 / 16 W 1608 5.00% D	
		R269	0RH5601C622	RESISTOR,METAL GLAZED(CHIP)	5.6K OHM 1 / 16 W 1608 5.00% D	
		R270	0RH3302C622	RESISTOR,METAL GLAZED(CHIP)	33K OHM 1 / 16 W 1608 5.00% D	
		R271	0RH3302C622	RESISTOR,METAL GLAZED(CHIP)	33K OHM 1 / 16 W 1608 5.00% D	
		R272	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R273	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R274	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R275	0RH4702C622	RESISTOR,METAL GLAZED(CHIP)	47K OHM 1 / 16 W 1608 5.00% D	
		R276	0RH4702C622	RESISTOR,METAL GLAZED(CHIP)	47K OHM 1 / 16 W 1608 5.00% D	
		R277	0RH2702C622	RESISTOR,METAL GLAZED(CHIP)	27K OHM 1 / 16 W 1608 5.00% D	
		R278	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R279	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R280	0RH2702C622	RESISTOR,METAL GLAZED(CHIP)	27K OHM 1 / 16 W 1608 5.00% D	
		R281	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R282	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R283	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R284	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R287	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R288	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R289	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R290	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R292	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R293	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R294	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R295	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R296	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R297	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R298	0RH5100C622	RESISTOR,METAL GLAZED(CHIP)	510 OHM 1 / 16 W 1608 5.00% D	
		R299	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R300	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R302	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R303	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R304	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R305	0RH4702C622	RESISTOR,METAL GLAZED(CHIP)	47K OHM 1 / 16 W 1608 5.00% D	
		R310	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R312	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R314	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R319	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R321	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R323	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R333	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R334	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R335	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R336	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R337	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R338	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R339	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R340	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R341	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R342	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R343	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R344	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R345	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R346	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R347	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R348	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R351	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R352	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R353	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R354	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R356	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R357	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R358	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R359	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R360	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R361	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R362	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R363	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R364	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R365	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R366	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R367	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R368	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R369	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R370	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R375	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R376	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R377	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R378	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R379	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R380	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R390	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R391	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R392	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R393	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R394	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R395	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R396	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R397	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R398	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R400	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R401	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R402	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R403	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R404	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R405	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R406	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R407	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R408	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R409	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R410	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R412	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R413	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R414	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R415	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R416	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R417	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R418	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R419	0RH0222C622	RESISTOR,METAL GLAZED(CHIP)	22 OHM 1 / 16 W 1608 5.00% D	
		R420	0RH0822C622	RESISTOR,METAL GLAZED(CHIP)	82 OHM 1 / 16 W 1608 5.00% D	
		R421	0RH0222C622	RESISTOR,METAL GLAZED(CHIP)	22 OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R422	0RH0222C622	RESISTOR,METAL GLAZED(CHIP)	22 OHM 1 / 16 W 1608 5.00% D	
		R423	0RH0822C622	RESISTOR,METAL GLAZED(CHIP)	82 OHM 1 / 16 W 1608 5.00% D	
		R424	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R425	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R426	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R427	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R428	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R429	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R430	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R431	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R433	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R435	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R436	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R438	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R440	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R441	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R442	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R443	0RH4700C622	RESISTOR,METAL GLAZED(CHIP)	470 OHM 1 / 16 W 1608 5.00% D	
		R444	0RH2700C622	RESISTOR,METAL GLAZED(CHIP)	270 OHM 1 / 16 W 1608 5.00% D	
		R447	0RH0102C622	RESISTOR,METAL GLAZED(CHIP)	10 OHM 1 / 16 W 1608 5.00% D	
		R454	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R455	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R456	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R474	0RH2201C622	RESISTOR,METAL GLAZED(CHIP)	2.2K OHM 1 / 16 W 1608 5.00% D	
		R478	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R479	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R480	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R484	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R485	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R486	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R487	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R488	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R489	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R490	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R491	0RH0332C622	RESISTOR,METAL GLAZED(CHIP)	33 OHM 1 / 16 W 1608 5.00% D	
		R492	0RH0332C622	RESISTOR,METAL GLAZED(CHIP)	33 OHM 1 / 16 W 1608 5.00% D	
		R493	0RH0332C622	RESISTOR,METAL GLAZED(CHIP)	33 OHM 1 / 16 W 1608 5.00% D	
		R494	0RJ3601C677	RESISTOR,METAL GLAZED(CHIP)	3.6K OHM 1/16 W 5% 1608 R/TP	
		R495	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R496	0RJ3601C677	RESISTOR,METAL GLAZED(CHIP)	3.6K OHM 1/16 W 5% 1608 R/TP	
		R497	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R499	0RJ3601C677	RESISTOR,METAL GLAZED(CHIP)	3.6K OHM 1/16 W 5% 1608 R/TP	
		R500	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R501	0RH1502C622	RESISTOR,METAL GLAZED(CHIP)	15K OHM 1 / 16 W 1608 5.00% D	
		R502	0RH3901C622	RESISTOR,METAL GLAZED(CHIP)	3.9K OHM 1 / 16 W 1608 5.00% D	
		R505	0RH1502C622	RESISTOR,METAL GLAZED(CHIP)	15K OHM 1 / 16 W 1608 5.00% D	
		R506	0RH3901C622	RESISTOR,METAL GLAZED(CHIP)	3.9K OHM 1 / 16 W 1608 5.00% D	
		R508	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R510	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R511	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R512	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R513	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R514	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R515	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R516	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R517	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R518	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R519	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R520	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R521	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R522	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R523	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R527	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R528	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R529	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R530	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R531	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R532	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R533	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R534	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R535	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R536	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R537	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R538	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R539	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R540	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R541	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R542	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R543	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R544	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R545	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R546	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R547	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R548	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R549	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R550	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R551	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R552	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R553	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R554	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R556	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R560	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R561	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R562	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R563	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R565	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R566	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R567	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R568	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R569	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R571	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R572	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R575	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R577	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R578	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R579	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R581	0RJ1004C677	RESISTOR,METAL GLAZED(CHIP)	1M OHM 1/16 W 5% 1608 R/TP	
		R582	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R583	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R584	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R585	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R586	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R587	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R588	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R589	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R590	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R592	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R595	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R596	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R597	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R598	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R599	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R600	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R601	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R602	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R603	0RH5101C622	RESISTOR,METAL GLAZED(CHIP)	5100 OHM 1 / 16 W 1608 5.00% D	
		R604	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R605	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R606	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R607	0RH0562C622	RESISTOR,METAL GLAZED(CHIP)	56 OHM 1 / 16 W 1608 5.00% D	
		R608	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R609	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R610	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R611	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R613	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R614	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R615	0RJ1004C677	RESISTOR,METAL GLAZED(CHIP)	1M OHM 1/16 W 5% 1608 R/TP	
		R616	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R618	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R619	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R620	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R621	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R623	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R625	0RH1002C622	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
		R626	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R627	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R628	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R633	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R634	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R635	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R636	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)	330 OHM 1 / 16 W 1608 5.00% D	
		R637	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R640	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R642	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R651	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R652	0RH0752C622	RESISTOR,METAL GLAZED(CHIP)	75 OHM 1 / 16 W 1608 5.00% D	
		R653	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R654	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R655	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R656	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R657	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R658	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R659	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R661	0RH6202C622	RESISTOR,METAL GLAZED(CHIP)	62K OHM 1 / 16 W 1608 5.00% D	
		R662	0RH1502C622	RESISTOR,METAL GLAZED(CHIP)	15K OHM 1 / 16 W 1608 5.00% D	
		R663	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R664	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R665	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R666	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R668	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R669	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R670	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R671	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R672	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R673	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R674	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R675	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R676	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R677	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R678	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R701	0RH5601C622	RESISTOR,METAL GLAZED(CHIP)	5.6K OHM 1 / 16 W 1608 5.00% D	
		R702	0RH5601C622	RESISTOR,METAL GLAZED(CHIP)	5.6K OHM 1 / 16 W 1608 5.00% D	
		R703	0RH3302C622	RESISTOR,METAL GLAZED(CHIP)	33K OHM 1 / 16 W 1608 5.00% D	
		R704	0RH3302C622	RESISTOR,METAL GLAZED(CHIP)	33K OHM 1 / 16 W 1608 5.00% D	
		R705	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R706	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R707	0RH4702C622	RESISTOR,METAL GLAZED(CHIP)	47K OHM 1 / 16 W 1608 5.00% D	
		R708	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R709	0RH4702C622	RESISTOR,METAL GLAZED(CHIP)	47K OHM 1 / 16 W 1608 5.00% D	
		R710	0RH2702C622	RESISTOR,METAL GLAZED(CHIP)	27K OHM 1 / 16 W 1608 5.00% D	
		R711	0RH2702C622	RESISTOR,METAL GLAZED(CHIP)	27K OHM 1 / 16 W 1608 5.00% D	
		R712	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R713	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R714	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R715	0RH2001C622	RESISTOR,METAL GLAZED(CHIP)	2K OHM 1 / 16 W 1608 5.00% D	
		R716	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R717	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R718	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R719	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R720	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R721	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R723	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R724	0RH2200C622	RESISTOR,METAL GLAZED(CHIP)	220 OHM 1 / 16 W 1608 5.00% D	
		R728	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R729	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R730	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R734	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R735	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R736	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R737	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R738	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R739	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	



S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R740	0RH8200C622	RESISTOR,METAL GLAZED(CHIP)	820 OHM 1 / 16 W 1608 5.00% D	
		R741	0RH1500C622	RESISTOR,METAL GLAZED(CHIP)	150 OHM 1 / 16 W 1608 5.00% D	
		R742	0RH8200C622	RESISTOR,METAL GLAZED(CHIP)	820 OHM 1 / 16 W 1608 5.00% D	
		R743	0RH1500C622	RESISTOR,METAL GLAZED(CHIP)	150 OHM 1 / 16 W 1608 5.00% D	
		R744	0RH8200C622	RESISTOR,METAL GLAZED(CHIP)	820 OHM 1 / 16 W 1608 5.00% D	
		R745	0RH1500C622	RESISTOR,METAL GLAZED(CHIP)	150 OHM 1 / 16 W 1608 5.00% D	
		R746	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R747	0RH1200C622	RESISTOR,METAL GLAZED(CHIP)	120 OHM 1 / 16 W 1608 5.00% D	
		R748	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R749	0RH1200C622	RESISTOR,METAL GLAZED(CHIP)	120 OHM 1 / 16 W 1608 5.00% D	
		R750	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R751	0RH1200C622	RESISTOR,METAL GLAZED(CHIP)	120 OHM 1 / 16 W 1608 5.00% D	
		R752	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R753	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R754	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R755	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R756	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R757	0RH1201C622	RESISTOR,METAL GLAZED(CHIP)	1.2K OHM 1 / 16 W 1608 5.00% D	
		R761	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R764	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R765	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R766	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R767	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R768	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R769	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R770	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R771	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R772	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R773	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R776	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R777	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R778	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R779	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R780	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R782	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R783	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R787	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R788	0RJ4300C677	RESISTOR,METAL GLAZED(CHIP)	430 OHM 1/16 W 5% 1608 R/TP	
		R789	0RJ4300C677	RESISTOR,METAL GLAZED(CHIP)	430 OHM 1/16 W 5% 1608 R/TP	
		R790	0RJ4300C677	RESISTOR,METAL GLAZED(CHIP)	430 OHM 1/16 W 5% 1608 R/TP	
		R791	0RH4702C622	RESISTOR,METAL GLAZED(CHIP)	47K OHM 1 / 16 W 1608 5.00% D	
		R792	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R793	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R794	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R795	0RH0272C622	RESISTOR,METAL GLAZED(CHIP)	27 OHM 1 / 16 W 1608 5.00% D	
		R799	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R800	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R801	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R802	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R803	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R804	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R805	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	
		R806	0RH4703C622	RESISTOR,METAL GLAZED(CHIP)	470K OHM 1 / 16 W 1608 5.00% D	

S	AL	LOCA. NO.	LG PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
		R807	0RH5601C622	RESISTOR,METAL GLAZED(CHIP)	5.6K OHM 1 / 16 W 1608 5.00% D	
		R808	0RH5601C622	RESISTOR,METAL GLAZED(CHIP)	5.6K OHM 1 / 16 W 1608 5.00% D	
		R809	0RH1000C622	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
		R810	0RH1004C622	RESISTOR,METAL GLAZED(CHIP)	1M OHM 1 / 16 W 1608 5.00% D	
		R811	0RH4700C622	RESISTOR,METAL GLAZED(CHIP)	470 OHM 1 / 16 W 1608 5.00% D	
		R812	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R814	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R815	0RH0000D622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 10 W 2012 5.00% D	
		R816	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R817	0RH2701C622	RESISTOR,METAL GLAZED(CHIP)	2.7K OHM 1 / 16 W 1608 5.00% D	
		R950	0RH4701C622	RESISTOR,METAL GLAZED(CHIP)	4.7K OHM 1 / 16 W 1608 5.00% D	
		R951	0RH1001C622	RESISTOR,METAL GLAZED(CHIP)	1K OHM 1 / 16 W 1608 5.00% D	
		R952	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R953	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R954	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		R955	0RH6341C422	RESISTOR,METAL GLAZED(CHIP)	6.34K OHM 1 / 16 W 1608 1.00%	
		R956	0RH0000C622	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
		TU100	6700NB0014A	TUNER	TDVL-H001P(ATSC-QAM-VSB- NIM)	
		TU101	6704R-N005A	MODULATOR	TASA-H001F W/0 RF 3/4 LG NTSC	
		U100	6204B43333C	OSCILLATOR	BMS-873R BUBANG 33.3333MHZ +/-	
		U101	6204B41200C	OSCILLATOR	BMS-873R BUBANG 12.0000MHZ +/-	
		U104	6204B41350C	OSCILLATOR	BXV-153R BUBANG 13.5000MHZ +/-	
		U105	6204B48333C	OSCILLATOR	BMS-873R BUBANG 83.3300MHZ +/-	
		U106	6204B41228A	OSCILLATOR	K3750HC CHUNGHO ELCOM 12.288MH	
		VX100	6204B62700C	OSCILLATOR	BXV-153R BUBANG 27.0000MHZ +/-	
		X100	6212AB2008A	RESONATOR,CRYSTAL	SX-1 SUNNY 18.432MHZ +/- 30 PP	
		X101	6212AB2010A	RESONATOR,CRYSTAL	SX-1 SUNNY 20.25MHZ +/- 30 PPM	
		X102	6212AB2245C	RESONATOR,CRYSTAL	HC-49/SM BUBANG 24.576 MHZ +/-	
		X103	6212AB2800C	RESONATOR,CRYSTAL	HC-49/SM BUBANG 8MHZ +/- 50 PP	

# MEMO

A series of horizontal dotted lines for writing.